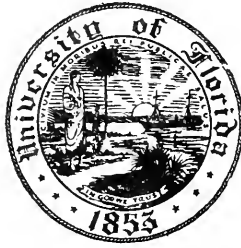
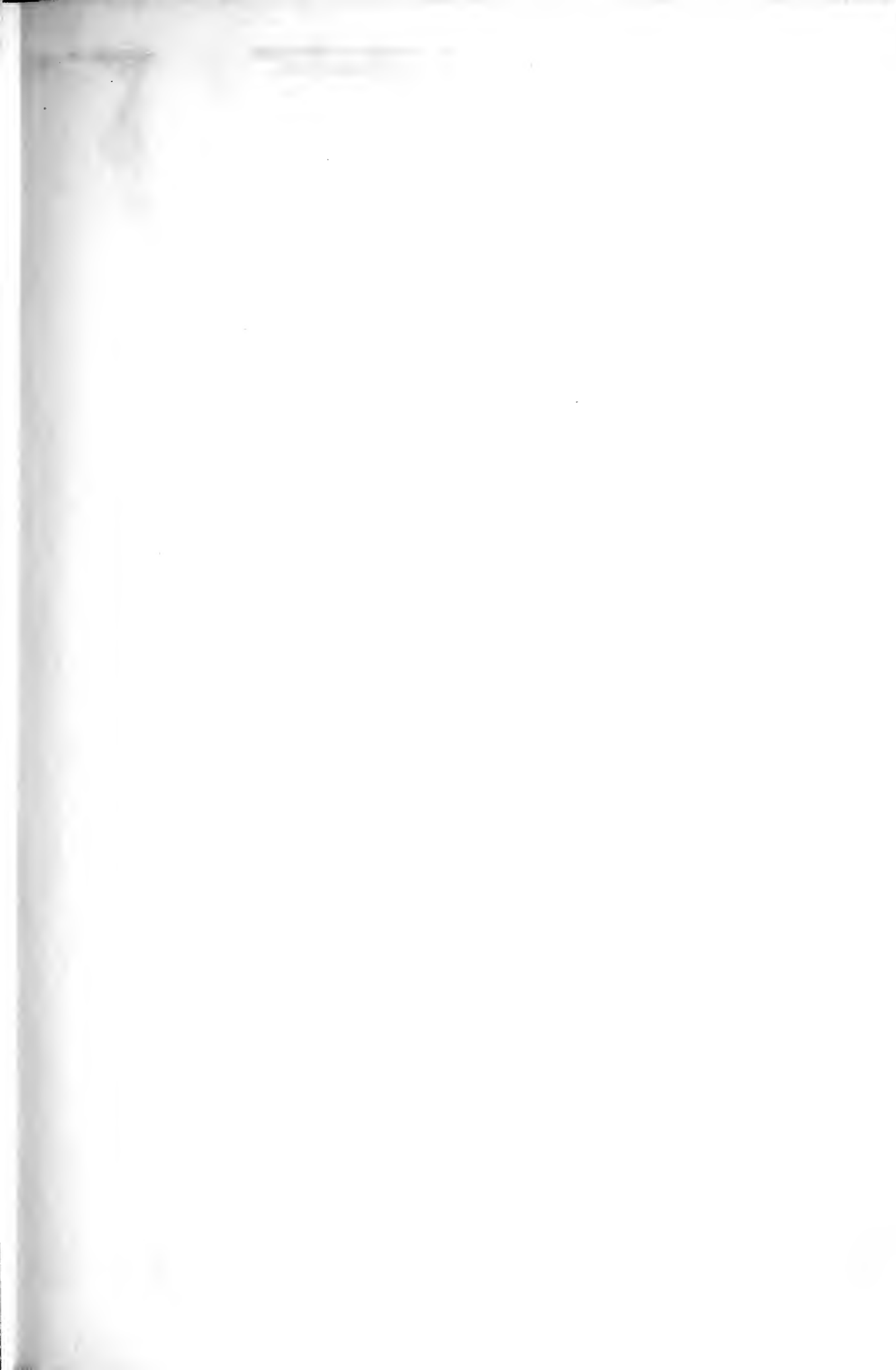


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AN
INTRODUCTION
TO
GRADUATE STUDY
IN
SPEECH AND THEATRE

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GRADUATE STUDY
IN
SPEECH AND THEATRE

Clyde W. Dow, *Editor*

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Dedicated to our students:

That they may be better prepared to carry on
the advancement of our profession.

*AN INTRODUCTION TO GRADUATE STUDY
IN SPEECH AND THEATRE*

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Foreword

More than 2000 years ago research in the field of speech began. Plato and Aristotle *et al* provided us with piercing insights into the nature of the rhetoric and poetic processes. Many of their critical observations and analyses were so thorough and incisive that they served as models for speechmaking and playwriting throughout the intervening centuries. Even today the work of the ancients provides firm basic criteria against which most speech is judged.

From the birth of Christ to the beginnings of the twentieth century men frequently turned their minds to new scientific and educational adventures and sometimes lost sight of the central importance of the oral communication process. In the early years of the twentieth century (ridiculous as it may seem) speech was often accused of being a johnny-come-lately to education. But today as we pass the midpoint of the century the place of speech on the educational scene is again assured. It is once more recognized as one of the central instruments of education. As breakdowns in communication have plagued the individual, the family, the municipality, the state and the nation, great new interest is evidenced in the theory and process, the principles and procedures of effective verbal and non-verbal communication.

Perhaps even more important we have come to realize how little we know about the complicated process of person-to-person, person-to-group, group-to-group communication. The speech and hearing scientist recognizes that we have only taken the first steps in the analysis of the normal let alone the abnormal speech process. The rhetorician with the help of the behavioral scientist is plunging into uncharted seas in the study of oral communication. The dramatist not content with armchair philosophizing about creativity is concerned with the whys and hows of this elusive process.

These new concerns have made research the cornerstone of speech activity. Old and new research methods are being tested and retested. Laws and principles under which generations have lived are being subjected to new and careful scrutiny. New theories and procedures are being hypothesized and validated or invalidated. In a sense we are racing against time. Effective, moral, responsible oral communication can mean the difference between survival and destruction.

It is with these concerns that this volume is published. There is no pretense that the materials which lie between its covers provide the be-all and end-all of research methodology. It does offer the stimulation and excitement found in reviewing some of the avenues, directions, strengths, weaknesses, even pitfalls of research. The sixteen essays are neither all inclusive nor mutually exclusive. Indeed in some instances there may appear elements of contradiction—which is as it should be. No group of scholars can be expected to see eye-to-eye on all matters. It would be a shame if they did.

Every beginning researcher should be exposed to the contents of this volume. He will receive more stimulation toward research than has ever been concentrated in one place before. The documentary sources used in the writing of the essays will by themselves open endless new vistas. Every old researcher should enjoy the opportunity to agree or disagree with his colleagues, to revitalize his own research thinking.

Finally, it is with considerable “family” pride that I notice that Michigan State University Press has undertaken the publication of a work which is so vital in this “age of communication.”

John E. Dietrich, Head
Department of Speech
Michigan State University

Preface: To the Teacher

One thousand graduate degrees in speech were awarded during the 1958 calendar year.¹ Estimates of the number of students who took some graduate work, but did not complete the degree requirements suggest that as many as one-third more may have fallen by the way. The amount of counseling, advising, and conferring done by the instructional and administrative staff to direct these graduate students becomes an increasingly heavy load. Since the advisement of graduate students is usually done in addition to the normal teaching load and expected professional responsibilities, the workload multiplies overwhelmingly. Furthermore, graduate advisement and direction fall upon the better members of the speech staff. Consequently program, staff and student may suffer. All present predictions indicate that graduate enrollments will increase faster than staff can be added to care for their educational needs.

As a partial answer to the problem of maintaining quality and dealing with the increasing quantity of present and future graduate students, some adequate means of imparting fundamental information is needed. Such is the over-all purpose of *Introduction to Graduate Study in Speech and Theatre*.

This book is written for graduate students in the broad field of "speech"—students in rhetoric and public address, drama, speech pathology, audiology, radio-TV, oral interpretation, cinema, and speech education. These students have for many years been using one or more of the several excellent texts on research methods in such related fields as psychology and education. However, illustrative examples of research in psychology and education are usually less meaningful to a student of speech than examples drawn from his own field of special interest and experience. Therefore, with the steady increase in the numbers of graduate students in oral communication, has come a steady increase in the felt need for a book on research methods in our field.

This book has two specific purposes. The first purpose is to provide the graduate student of speech with a concise over-all guide for his own research. The authors have tried to describe the major steps of each research method in proper sequence, and to point out some of the most com-

mon pitfalls to be avoided. The authors realize that no single book can provide complete instructions for doing a thesis or dissertation. The materials are presented, however, in such fashion as to facilitate further readings, and to lighten the burden of the student's faculty committee.

The second specific purpose is to help develop standards for the evaluation of graduate research in speech. The authors hope that this book, supplemented by class discussions and lectures drawn from the research experience of teachers, will provide sufficient information to guide the student toward a better understanding and more accurate appraisal of research by other students.

While trying to accomplish the above specific purposes this book also attempts to give a general picture of graduate research activity in various areas of the speech field. As of 1958, American colleges and universities had reported an all-time cumulative total of 14,253 master's degrees in speech and 1,606 doctor's degrees in speech.² Only a small sampling of all this graduate research can be given in this book. The authors have endeavored, however, to choose research examples which, taken together, will illustrate the scope and variety of research problems, methods, and techniques.

Let us be indisputably clear in our purpose: No book, pamphlet, or set of directives can substitute for the professor in his individual guidance work with the advanced student, but much of the foundation on which the advising professor builds his direction can be obtained from the materials given in this book. Thus conferences with the student can be devoted to the more advanced and relatively specific matters of the student's own problem.

Improving the quality of academic work in any field involves many factors: The intellectual and artistic abilities of students are primary factors; so too are backgrounds and degree of motivation these students bring to their work. But in no field can there be progress without a background of information and principles established by preceding scholars in that field. To increase the maturity of our graduate research we have attempted to provide that necessary foundation in *Introduction to Graduate Study in Speech and Theatre*. The authors have brought together the fundamental approaches to advanced study in speech so that the advising professor may be assured his students will have a good foundation for his direction. Each author is an expert in the field in which he has written, and he brings to the reader a rich experience of many years of teaching and working with graduate students. Regionalism has been avoided by selecting authors in graduate departments of speech throughout the United States. The chapters included, as well as the development of materials within the chapters, have been refined from student use at both the University of Southern California and Michigan State University. The materials have been subjected to student and professional criticism prior to appear-

ance in this book. Herein the authors and editor present materials we believe desirable as the foundation for increasing the quality of our graduate work in speech.

Clyde W. Dow
Michigan State University
East Lansing, Michigan

NOTES

1. Franklin H. Knower, "Graduate Theses--An Index of Graduate Work in Speech, XXVI," *Speech Monographs*, Vol. XXVI, No. 3, (August, 1959), 155.
2. *Ibid.*, 155.

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AN
INTRODUCTION
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SPEECH AND THEATRE

CHAPTER 1

Introduction: To the Student

CLYDE W. DOW

Michigan State University

You, as a student beginning your graduate work in speech, should become aware of some significant differences between undergraduate and graduate expectations. Some of these differences are differences in degree of amount or quality, and some are differences in kind.

Differences in degree. Both undergraduate and graduate programs seek the highest degree of scholarship which can be obtained, but whereas an undergraduate may receive a degree with "C" average it is expected that a graduate student will maintain at least a "B" average in performance of his studies. For those seeking to enter programs for doctoral degrees a rough classification for admission is sometimes established as requiring one-third of past academic performance to be at the "A" level. Thus, you are expected to bring to your work as a graduate student a quality of past performance which suggests that you can profit from advanced study in an academic institution. Furthermore, you are expected to maintain, very largely on your own initiative, a higher quality of work than the typical undergraduate student.

The acceptance of responsibility for his own growth is also an objective sought by every academic institution. In individual study the undergraduate is given some opportunity—and this varies greatly from one academic institution to another—to ferret out materials and to learn by himself. At the graduate level, the age of spoon-feeding has come to an end. By the beginning of graduate school the student is expected to have learned how to learn by himself. No longer is the remark, "He didn't teach me anything" appropriate, but it becomes instead, "I didn't learn anything". The responsibility for learning shifts—to a greater degree—from the instructor to the student. As a result of this shift you are now expected to spend longer hours in the library, and in the laboratory, and on the stage, and you are expected to have an aim in so doing.

Guidance or direction for the undergraduate—especially in large institutions—is frequently prescribed in a catalog or program of courses. In smaller institutions, the undergraduate student may have had frequent

talks with some of his teachers about his study. At the graduate level this difference in guidance or direction may sometime be so different from the undergraduate program as to be almost a difference in kind rather than a difference in degree. The commonly accepted practice of most institutions is to provide a major professor or major adviser for each graduate student. Together you and your major adviser will go over your past program, will consider your capabilities, your strengths and your weaknesses, and your aims as a graduate student. Then you will evolve a program of study and research that will prepare you most satisfactorily for the specific work you plan to do. Your adviser will indicate courses you should take, and directions of growth desirable for you. From that point forward, the completion of those requirements or suggestions becomes your responsibility. Your adviser will continue to serve you throughout your work, but do not expect him to do your work for you.

Definiteness of aim is required in both undergraduate and graduate work. As an undergraduate you probably "declared a major" sometime prior to your junior year. For most students this was a major in speech, for others it may have been a major in theatre, or speech pathology. At the graduate level the aim which you pursue generally becomes even more specific. Although some graduate students will still be working in "general speech"—a term used to include several areas of study—most will now have decided to work in a specific area such as public address, or interpretation, or audiology. As a graduate student you now enter the area of specialization more thoroughly than you did as an undergraduate. This does not, nor should it, mean that you have completed all "general" courses. To meet weaknesses in your preparation for competence in your field it may be necessary for you to take general courses, and in some cases undergraduate courses, before you can become properly prepared for your specialized work, but the specialist who is thoroughly and competently prepared in his area now becomes your major aim.

Difference in kind. Although there is a certain amount of creativity in any learning situation, the great distinction between an undergraduate and a graduate—especially an advanced graduate student at the doctoral level—is that he is no longer solely responsible for acquiring information; he is now expected to contribute or add to the sum total of knowledge in his area. The candidate at the master's level may be expected to make only a small contribution to the advancement of his area of knowledge, but the doctoral candidate is expected to conduct research and study of his own that will in some significant, even though small, way enlarge the boundaries of known experience. It is in the graduate school that the highest purpose of a university reaches its zenith in the search for the promulgation of truth or knowledge.

DEFINITIONS

A graduate student is defined as one who has been admitted to advanced study beyond the bachelor's degree or beyond a first professional degree. A graduate student is not always a candidate for an advanced degree.¹

A graduate student in the field of speech, for purposes of this book, is defined as one who is doing advanced study in those areas called fundamentals, public address, interpretation, radio and television and film, theatre, speech and hearing disorders, and speech education.²

Although there is far from unanimous agreement among members of the profession concerning the major and minor divisions of the field of speech, the editor has chosen the Knower classifications because they provide a readily usable source of reference for the beginning graduate student.³

EXPECTATIONS AND RESPONSIBILITIES

As we have noted earlier, it is the graduate school that best exemplifies the characteristics of university life in which the acquisition and extension of knowledge take place. Participation in graduate study entails certain expectations and responsibilities on the part of the graduate student. The following succinct statement will serve as our guide:

Each graduate student is expected to develop his full potential as a scholar, to possess an intellectual curiosity and an impelling desire to learn. Closely allied to scholarship is the responsibility of discipline. Each graduate student must make adequate preparation for competent investigation in his own field of study. Graduate study should cultivate habits of good workmanship. Each graduate student should be proud of his work.⁴

If you do not already possess the intellectual curiosity and an impelling desire to learn, it is our sincere belief that you should not be in graduate school. Assuming that you have those characteristics, it is with the remaining parts of the above quotation that this book is primarily concerned.

The disciplined mind expected of the graduate student is one that leads him to search diligently, consistently and objectively for understanding in both old and new knowledge. No book can do this for you, but it can help you by revealing the careful and painstaking work of other scholars; and it can point the way for you to emulate their efforts. Additional guidance is obtained from observation and association with other careful scholars. The information in this book should be supplemented by classroom and informal discussion, by conferences with your major professor and continued practice on your part in maintaining the highest standards of performance in all of your graduate work. If the foregoing guides are followed you will have not only the disciplined mind required, but you

will also have more-than-adequate preparation for the competent investigation expected of you.

Habits of good workmanship have been delineated by the authors of the several chapters. Both by example and direction the authors have indicated procedures, which if you follow, will assist you in cultivating those habits of good workmanship exemplifying the careful scholar and better graduate student.

The amount of pride you are able to take in your work will depend on the degree to which you have been thorough in your study of materials, meticulous in carrying through the individual steps of your investigation, cogent in drawing inferences and conclusions from your data, and skillful in organizing and writing the report of your research. The authors have suggested standards of judgment whereby research may be judged as to quality. If your work meets those standards you may be assured that you may take pride in it, and in addition, you may be proud to have contributed some small part to the increase of knowledge in your professional field.

A Word on Varying Requirements. Since the expectations and requirements for graduate students vary from institution to institution, and in larger institutions from school to school within the institution, and sometimes within departments of the same school, it behooves the beginning graduate student to obtain from the appropriate source the specific requirements pertaining to his own program. Most universities have a general policy statement given in the graduate catalog of that university, or obtainable from the office of the Graduate School. In addition some institutions supply printed statements of the specific regulations for a particular college or school; for example, the School of Speech, or the College of Communication Arts. And last, since there may be variations from department to department—Department of Drama and Department of Speech Pathology—you may obtain from the office of the head of the department a copy of the regulations for graduate students in that department. The beginning graduate student should become familiar with all necessary requirements for his own program.

RESEARCH AND INVESTIGATION AT THE GRADUATE LEVEL

Competent investigation and reporting of that investigation are normally a part of the graduate student's program. This investigation takes the form of a project, thesis or dissertation. All doctoral degrees require a dissertation, and more than half of all the master's degrees earned in speech during the past twenty-five years have required a thesis.⁵ For those master's degrees earned without a detailed thesis, a project or a written report of investigation may be required to reveal the student's disciplined ability to acquire, organize and report knowledge within his field.

Question, purpose, hypothesis, subject. The investigation (frequently

called a *problem*) undertaken as a significant part of graduate work is usually phrased in one or more of several ways. You should grasp the general idea of each so that you may begin planning early in your graduate study what you wish to investigate. The *how* of the investigation will be determined by you and your adviser later when you have become better acquainted with the most satisfactory approaches to your specific interest.

Investigation, whatever its type, centers around some specific idea in which you have an interest. Many students will have done "term papers", and if these were well directed and well planned they may have been sufficiently limited to deal with a specific subject, idea or policy. Some superior students in theatre may well have designed a set, or directed a play, or even tried a hand at writing one. If any of these have been adequately planned for, carefully executed, and analyzed and reported, such students may have already taken some steps in the direction of the type of investigation required at the graduate level. Some graduate students may have had no experience with anything closely related to the requirements of investigation at the graduate level. The following brief statement will supply such students with an introduction:

Question. The question is an excellent way to state a problem for investigation. For example, What is the relation between public speaking performance and intelligence? Or to state it another way, Do students with high scholastic entrance scores get higher grades in public speaking than do those with low scholastic entrance scores? Does a course in Voice and Diction improve the voice quality of those who take it? These relatively simple questions will illustrate how to begin.

The initial wording of a question is rarely sufficient for the final statement to be used in the research, but the "I wonder what . . .?" or the "What is the . . .?" idea can be used as the starting point for something that can be eventually refined into a carefully thought-out and carefully worded problem for investigation.

Purpose. Some investigators find it more to their liking to state what they plan to do. Such a statement is called a statement of purpose. For example, if we look at the June, 1959 issue of *Speech Monographs*⁶ we can select at random a number of purpose statements: "It was the purpose of this research to examine a particular functional relationship between social class membership and ethos".⁷ "The purpose of this study was to survey a variety of research techniques employed in experimental studies of radio broadcasting".⁸ Sometimes the words, *the purpose of* are omitted, but the intent is clear. In the next example observe that it could be reworded to read: "The purpose of this study was to develop . . .". As reported by the author it reads: "This study was designed to develop a graduate achievement test based on theatre vocabulary that would satisfactorily estimate the background of graduate theatre students."⁹

A sampling of the issue of *Speech Monographs* from which these statements were selected indicates that the direct or implied purpose statement

is the type most commonly used by the authors in abstracting their studies.

Hypothesis. The hypothesis as a guide for investigation begins with a carefully thought out assertion that is to be subjected to testing to determine whether the assertion is to be accepted or rejected. Or in some cases to determine to what degree the assertion is acceptable. For example, the assertion is often made that analogy is not a good form of proof. If we define the term "good" to mean "effective" we can plan an objective study to determine whether analogy as a means of persuasion is more or less effective than some other forms of proof. One hypothesis might read: Analogy is not an effective method of persuasion.

A combination purpose and hypothesis statement in the same issue of the *Monographs* from which the other examples have been selected reads: "The purpose of this study was to test the hypothesis that hypernasal voice of non-psychogenic, non-destructive disease or non-surgical nature is the result of disturbances in growth development, primarily of structures in the area of palatopharyngeal isthmus and, secondarily, in the adjoining structures."¹⁰

Subject. The subject as guide to investigation provides little more than an indication of interest and must soon be rephrased to include a more specific aim. Thus the student says, "I want to study the speaking of Calvin Coolidge", or he says, "I'm interested in investigating stage fright". These provide a beginning for thinking, but need to move very soon to more sharply defined statements of intent. Two doctoral statements that come very close to being statements of subject, but have added the necessary directions of investigation are: "This study of John G. Neihardt presents an analysis of his effectiveness as a speaker and reader."¹¹ And that of Constance Ruys:¹² "This dissertation is a study of the growth and problems of the Netherlands' national theatre during the first decade of its existence."

These four—question, purpose, hypothesis, and subject,—are the major ways in which a statement for investigation begins to take final form. The beginning graduate student is warned, at this time, as will be made clear throughout later portions of this book, that the final phrasing of the statement for his investigation develops slowly and requires refinement and careful wording. A well phrased question, purpose, hypothesis or subject will indicate clearly—when the terms have been defined—precisely what is to be included in the investigation and what is to be excluded. (See Chapter 9). Thus frustration and disappointment may be avoided in later research if the necessary thought and care are given to this very important sentence.

Finding a problem. Most teachers and other workers in the field of speech have many questions they would like to have answered, and many subjects they would like to investigate. Experience has provided them with many thought-provoking ideas they would like to evaluate, or has lead them along paths that look to be interesting and valuable. The begin-

ning graduate student, on the other hand, when faced with the selection of a topic for investigation may be at a loss. He feels the need of something worthy of his abilities, but does not know where to turn. The following suggestions should prove helpful in locating a subject worth his investigation:

(1) *Local Backgrounds.* In his search for a suitable topic, says Gregg Phifer, no candidate can afford to ignore his own interests and background. For example, several preachers and teachers at seminaries or church related colleges have completed studies on ministers or homiletics. Edmund Holt Lin of Andover Newton Theological Seminary wrote on "The Rhetorical Theory and Practice of Harry Emerson Fosdick", at the State University of Iowa, and Roy Umble of Goshen College did his doctoral at Northwestern on "Mennonite Preaching, 1864-1944".

The home state or section of the country offers many fascinating research projects close at hand. These local matters may be in any areas of speech and lead to the use of any of several research methods. Such subjects as the local radio station, the past or present theatre, speech correction program, local industry, regional speech patterns, and even a particular sound or vowel usage can prove to be interesting and valuable sources for investigation.

Many students find in their course work—especially in shorter papers prepared during their undergraduate or early graduate study—a topic that is worthy of being refined, and developed into a full-scale study. Have you, for example, made a critical evaluation of a speaker, film, television or radio program? Have you begun some brief study of a playwright, play type of drama, or type of speech? Have you made an analysis of any speech problem or looked briefly into the theories of teaching, correcting, acting, etc.? Do any of these past short papers bring to your mind something that may prove worthy of further investigation?

(2) *Departmental Research.* Since the extension of knowledge is likely to move step by small step to a more complete understanding of an area, some departments have persistently pursued a particular area of study over a period of years. Wendell Johnson and his students in Speech Pathology and Psychology at the State University of Iowa have done many studies related to stuttering. Each study has contributed its part to the gradually expanding picture of understanding and treating this one area of speech. Likewise, for many years, Elwood Murray at the University of Denver has had students doing research into the factors underlying observable speech behavior.

When you have an interest in a particular area, but do not know exactly what you wish to investigate within that area, you may sometimes find that your best choice for a research topic lies in carrying out a part—and this should be a part in which you have a deep and abiding interest—of the long-range research program being undertaken by the department in which you are doing your graduate work. We hear much today of "team

research", and the graduate student who likes to work as a member of a team can probably come closest to this objective by joining in a long-term project outlined by a particular professor or department.

(3) *Printed Sources.* Ever since Volume I, Number 1, of the *Quarterly Journal of Public Speaking*, in April 1915 appeared, "The Need for Research"¹³ has been a favorite and recurring theme in our professional journals. Newcomers to the field would do well to read the suggestions of the "elder statesmen" of the profession.

"Where may a graduate student profitably look to find his dissertation subject?" asks Rupert Cortright. He may find some of the more promising and better tested ideas in the latter pages of dissertations already completed. In the exploration of his own project each dissertation-writer is likely to uncover and record many promising possibilities which become available for others. Another fruitful source of ideas is *Speech Monographs*. Probably no field except speech has had all its research and dissertation topics from every institution in the nation offering graduate work therein listed as has been done in the annual articles compiled by Franklin Knower and referred to earlier in this chapter. This overview of what has been done (and there is added in recent years a listing of dissertations in progress) will reveal upon careful examination where excellent under-explored areas yet remain. A third source for dissertation subjects is to be found in the lists of suggestions usually compiled by advisers, departments, and schools. Yet all of these, in the final analysis, can merely stimulate the lively imagination and ingenuity of each individual graduate student. The finest topic otherwise would be a poor choice if not attractive to and suited to the unique abilities and opportunities of the specific student.

(4) *A Word of Warning.* A good topic or problem will not relieve you of the hard work that is an integral part of any thorough research, but it can make that work a pleasure. A poor topic often makes research tedious and delays completion of the project and receipt of the desired degree. Closely related to the topic selected is the method or approach used in carrying out your investigation. It is important that the approach you use will be compatible with your interests and abilities. To that end, you will find in many chapters of this book a section pointing out the characteristics you generally need to possess in order to be reasonably content if you plan to work with that approach to your investigation.

Concentrated work, sometimes over a period of years, tends to make nearly any project lose some of its luster. Even the good graduate student who has originally chosen a topic in which he is vitally interested frequently discovers that there are periods when all does not go as smoothly as he wishes, and he encounters times when he is discouraged with his progress. Since nearly all creative work is fraught with some anguish, do not be discouraged; you are normal, and are growing and disciplining yourself as all who engage in any creative act must do.

Preliminary Evaluation of the Investigative Topic. The final, refined

wording of the research you undertake, as we have noted earlier, does not emerge until much thinking has been done. In many instances a good deal of reading in the immediate area and related areas of your subject will have been done before the question, hypothesis, purpose, or subject begins to take its final form. Authors of other chapters have given additional suggestions to assist you in growing toward the specific statement needed to direct, focus, and limit the area of your investigation so you may do a competent piece of work. But soon after you begin to have ideas of what you desire to study more fully you should begin to ask, as Martin Maloney suggests, "Is it worth doing?"

There is no easy way of answering the question: Is it worth doing? The first, and most obvious guide is to discover whether it has already been done. This leads you to lists of previous studies. There you may discover that exactly what you have in mind has been done. If such is the case, you will usually be advised to either select a new subject or to modify your original topic in some way to emphasize an aspect not previously studied. Many times a given subject has been investigated earlier, but from a different point of view or with a different emphasis.

A second way of estimating the worth of any proposed investigation is to ask: Is there an immediate or long-range need for the particular information or situation proposed for study? Many creative studies, especially at the master's level, have a definite worth in that they provide curricula or teaching materials needed now. The doctoral dissertation of Margaret Servine emphasizes the idea of worth as determined by need when she says, "The need for such a book became apparent after all the literature in the field of oral interpretation for the secondary school had been examined for completeness, clarity, and student appeal."¹⁴

A third, and probably the most important evaluation, is the subjective judgment of experts in the field. For a satisfactory evaluation the experts need a reasonably precise and detailed statement of what you propose to investigate and how you propose to go about it. In some departments of speech the student prepares a "Statement of Intent". Exactly what should be included in this statement of intent is determined by the approach to be used: information required for a creative study will differ from that required for an experimental study; that for an empirical study will differ from a historical study. But in all cases there must be a statement of what question, subject, or hypothesis the student intends to investigate, and how he plans to conduct the investigation. It may include a statement of the subjects to be used, the measuring instruments, if any, and some indication of the anticipated findings and ways to evaluate them. The graduate student should obtain from his major professor the specific requirements as to form and content of the "statement of intent" so that all necessary information will be included. The student should also discuss his project and his proposed way of treating the subject with his fellow students as an aid to clarifying his own thinking. In some departments a seminar type of

program, attended by most of the graduate students, is scheduled; at these "seminars" the student can present his projected study and have it very critically analyzed both by his student colleagues and his professors. Such a complete and thorough attack on his project can not only help to determine its worth, but can also be of great value in checking weaknesses that may exist in any part of it.

We conclude our discussion of the criteria for determining the worth of any proposed study, by reminding the student that his adviser or advising committee can, after they have had an adequate opportunity to examine the proposed investigation, pass the most expert judgment as to the worth of his particular project.

Closely related to the question of, Is it worth doing? is the additional question: Can it be done? A given project may be very much worthwhile, but if it can not be done, then—at present—it is not usable. Whether a particular project can be done or not depends on the materials or subjects, or research techniques, instruments, and methods available at the time. It also includes the amount of time, money, and facilities required to complete the research. One way of stating the entire question of worth and possible execution of research is the advice: "Ask a meaningful question that may provide a useful answer". Knowledge is sometimes advanced more by the creation of a new research approach or device or technique than the immediate result of the research itself. A whole area of research could be carried on after someone first created the idea of palatograms; after x-ray motion pictures of the vocal apparatus were available better and more complete investigations could be made than before; when a new source of reference materials about a given man or given time becomes available, additional, new, and better investigation can be carried out. The graduate student who is seeking to breach new frontiers of knowledge will seek answers to his question, Can it be done? in the published literature, in conferences with leaders in the area, and in his own creative abilities as well as such long-used measuring sticks of time, availability of sources, etc.

THE METHODS OF INVESTIGATION

When you have decided on the problem for or purpose of your investigation, and when you have received tentative approval of that project, you will begin to put into play a whole related series of procedures and skills to carry through your investigation in a way that will provide the most valid and significant results. The many approaches to investigative problems selected by graduate students have prompted some departments to institute courses generally called Introduction to Graduate Study in Speech. In addition to treating common requirements of the department as to form and content of the dissertation, the use of the library and other source materials, and locating problems for research, the chief emphasis is usually placed on selecting proper methods and techniques for carrying

on investigation at the graduate level. The primary purpose of this book is to reveal the many different approaches that may be used as you carry on your investigation. The authors have tried to put into print the kinds of information—the guides, examples, and warnings—they give to their students as they meet with them in class. All are aware that each graduate student has problems that must be discussed individually with his adviser in conference, but they are also aware that much is common knowledge and common procedure. It is this basic knowledge,—knowledge you must have if you are to approach your research most effectively—that forms the major portion of this book.

Let us, therefore, turn our attention to a broad, general picture of investigation. Although there will be exceptions, a fairly general picture of the order of investigative procedures takes place. First, there is the development and proof of a problem worthy of investigation. Frequently concomitant with this first stage, as well as becoming the next stage, is the library investigation of earlier research on your subject or closely relevant subjects. Third, a relatively final, and clearly worded statement of the exact purpose, or problem of your investigation is evolved. This leads to the selection of those approaches best suited to prosecuting your investigation. These must be analyzed carefully, predicted with accuracy, and possible pitfalls of errors and omissions noted, so that serious mistakes will not be discovered so late as to make the investigation worthless. Fifth, the investigation with all its attendant guides and care of thought and checking is carried out. Next, the results are put into some meaningful form whether it be tables, graphs, acts, units, synopses, paragraphs, or chapters. Seventh, using the best thinking available, the pertinent and appropriate inferences and conclusions are drawn on the basis of what has been investigated and what has been found. And last of all the investigation is put into written form, after which it may be published in professional journals, or presented as findings to your colleagues at an appropriate gathering.

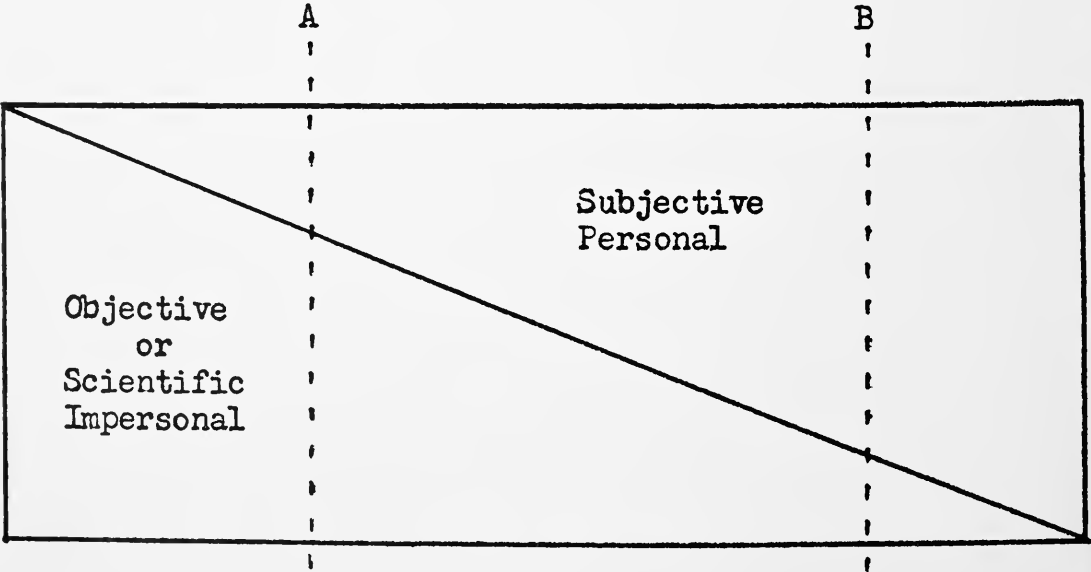
Following the pattern indicated above, Section I of this book, including this first chapter, has sought to orient you to graduate work, to suggest possible sources of subjects for your investigation, and to lead you to the selection and first broad statement of your topic. The second chapter will acquaint you with the broad sources of materials for all areas of speech, and indicate outstanding collections of source material.

Section II, Conducting Your Investigation, consists of twelve chapters, grouped as follows: A. Documentary Studies B. Creative Studies C. Objective Studies D. Selected Additional Aids. To understand the various approaches to research is it necessary that you become aware of the significant aspects of each.

Any system of classifying investigative methods or research approaches is somewhat arbitrary. Different scholars adopt different classifications. Furthermore, it appears that there is no classification of actual theses—unless it may possibly be historical that claims all knowledge as its province—that does not overlap in some part, at least one other type of

research. Even a “strictly experimental” study calls upon the historical and often the creative approach in carrying out the investigation. To be specific: Let us take an investigation in which the student is attempting to discover which of two training programs in voice and diction (or the correction of a lisp, if you wish) is the more effective. At the outset the student will have engaged in a survey of the literature on his subject. He will also have checked the history of similar experiments if he is at all thorough in his research. Next, he will have created at least one new program, and possibly two programs for voice and diction (or for correcting the *th* substitution). And he may have surveyed various schools and described their programs as a basis for creating his own trial program. Here is a study whose *primary* purpose is to test which of two programs is the more effective, but in carrying out this purpose the student has also used the methods of the historian, the creative skills, and the techniques of a survey, as well as a possible descriptive study of programs. What method or approach has he employed? Such a question can produce much useless argument. Since not all things can be discussed at once and since some classification seems desirable so we may talk about one thing at a time, let us agree that when we label a method as being experimental, historical, creative, etc., we mean this is the approach *primarily* used, but that other methods, techniques, and devices may have been involved. In other words, our classification is by emphasis rather than by exclusion. This classification by emphasis determines most of the chapters of this book since each focuses primary attention upon a particular approach.

Any single investigation could be placed on a theoretical construct as shown in the schematic presentation below.



Schematic Presentation of A Two-fold Division of Research or Investigative Approaches.

The study to determine which of two programs in voice and diction was the more effective could be indicated by the letter "A". By emphasis, most of the work and the aim of the study would fall within the area referred to as "objective", or "scientific", or "impersonal". This is the area in which experimental studies fall, since they tend to depend on attempts to present quantitative measures capable of being treated in some numerical or statistical fashion. The use of the survey and descriptive study would also fall in this area. On the other hand, the creation of new teaching materials or the materials used in the program would fall within the area of "personal" and "subjective" acts or interpretations, the area into which creative acts fall.

The letter "B" might represent a creative study in writing an original play, a production thesis, the creation of a curriculum or some new teaching materials. The *primary* aim and emphasis are on the personal building or creating of something new to meet a felt need. Even though the student might conduct a survey, and do an empirical study to determine how little or how much growth was made as a basis of creating his own material, or of evaluating the effectiveness of his program, since the major intent and major emphasis of this study were on the building of the program, the study would be classed as "creative".

It is interesting to speculate on the location of many historical and critical studies. Would you place them between "A" and "B" or to the right of "B"? What would form your basis for so placing them? Let us turn now to a consideration of such studies.

Documentary Studies. In this type of investigation, past or present speech phenomena are reconstructed from the examination of primary or secondary evidence. This evidence usually exists in the form of relics, documents, testimonials, pictures, and any other form of symbolic record.

In the library survey (Chapter 3) the investigator employs documentary materials to discover existing status of principles, methods, institutions or persons in terms of his research objectives. Usually such studies are concerned with present conditions, or present status, as reflected in written sources. Also, it is possible to refer to the library survey with regard to conditions at a particular time, either past or present. Past status, however, is usually interpreted as history.

The investigator, in the historical approach (Chapter 4) seeks to trace in time the development, method, practice, condition, etc., of some speaker or aspect of speech. Such investigation normally involves a consideration of the origin and verification of documents, evaluation of secondary sources in print and in person. When cast into suitable form, the end product is a better understanding of a selected aspect of the speech field.

In the critical or analytical approach (Chapter 5) the investigator utilizes such factors as structure, content, language, etc., of selected materials to make a systematic study of a single speaker, actor, interpreter, speech, play, group of speeches, etc. The better critical approaches emphasize

a specific standard or set of standards for purpose of arriving at an evaluation or judgment of the importance or influence of the material studied. The latter often include an evaluation of other critics' observation of the material under investigation.

Creative Studies. For want of a better term the editor has selected the term "creative" for those studies primarily concerned with the development of something new. The use of the term in this place must not be interpreted to mean by inference that all other modes of investigation are therefore without any "creation"; such is not the case, there is some creativity in any investigation.

In the several types of creative studies there is manipulation of direct or secondary data with the aid of imagination that usually, but not always, develops a literary product that contributes to an over-all understanding of a part of life; or develops a contribution to some specific part of the speech field.

The investigator writes a play, radio script, scenario, (Chapter 6) either according to accepted practice or by a new approach. Also, the investigator may exercise creative abilities by adapting a novel or short story for stage, screen, radio, or television. Or an adult play may be adapted for a young group or to specific conditions.

The investigator may (as in Chapter 7) write a prompt book with all necessary descriptions and directions without producing the play, radio or television show; or he may both write the prompt book and produce the show based on the written plan. If production takes place the whole or specific parts are subject to careful analysis. In other instances the investigator may create a setting, series of settings, costumes, etc. Also, the investigator may make a study of a single character, portray that character, and then analyze the performance of that character.

The last of the creative studies considered in this text (Chapter 8) deals with curriculum development. Herein, the investigator constructs or develops a curriculum, course of study, syllabus, text, drills or methodology, etc., based on original thinking, cumulative experience, and educational viewpoint (philosophy), for the purpose of making an original contribution, or improvement in classroom, or clinical procedure, or the handling of textual materials, etc., which will meet a felt need in a specific professional situation.

Scientific or Objective Studies. Custom prompts the use of the term "objective" or "scientific" for studies in this category, but the worker in areas of documentary analysis may complain that his efforts are also "scientific". The use of the term here must, therefore, not be construed to mean that no other approaches may be considered to be "scientific". Objective studies are concerned with controlled observation and with controlled behavior. Let us look first at the type of research where the primary concern is with controlling the investigator's observation of uncontrolled phenomena or data.

In the empirical or descriptive approach (Chapter 9) the investigator normally selects data from a certain area of interest and subjects these data to counting, classifying, for other analytical or grouping procedures which permit him to arrive at an adequate interpretation of the selected area. Many studies erroneously labeled "experimental" are better classed as descriptive or empirical. Thus studies in which a set of tests are given to a group of students in public speaking classes and the test results correlated with their grade performance are better considered as controlled and selected observation rather than controlled behavior.

The basic assumption of experimental research (Chapter 10) is that significant differences provide a basis for conclusions. Such differences are often, but not always, statistical differences. The intent of all experimental research is to hold all but one aspect of the data constant. Manipulation of the one variable (or group of variables) is observed for differences. It should be remembered that all experimental studies are classifiable under the larger heading of objective or descriptive studies, but not all descriptive (or empirical) studies are experimental; only when the behavior is controlled as well as the observation should the label "experimental" be applied.

Experimental methods vary in degree of control. Two common degrees of this method may be called situation and laboratory. In the situational type of research the investigator brings his data under a certain rigor of control in a more-or-less normal situation, such as a classroom. In speech the type of control may involve age, ability, intelligence, socio-economic background, methods, activities, etc. Initial and final ratings of speakers, speeches, performance, etc., are used to reveal differences.

In the laboratory type there is a greater refinement: Here the investigator brings his data under rigorous control and subjects those data to varying kinds of analyses. The investigator may use individuals, or preserved samplings such as recordings or films, etc., or both.

There is lack of agreement among the authors of this book concerning the survey approach (Chapter 11) as to whether it constitutes a different approach or whether it is better considered a technique or device for obtaining data to be used in descriptive and experimental studies. The editor has chosen to include it among the different approaches. Generally using questionnaires, or interviews, or job analyses, or one or more of these techniques, the investigator seeks information and assembles findings in a way which yields a representative picture of conditions, activities, trends, etc. When such an investigation is conducted by surveying printed materials we have the "library survey" reported in Chapter 3.

Selected Additional Aids. The days have passed when any book can include all information; even encyclopedias now have an "annual" to keep them up to date. This book is no exception, but certain areas and devices seem worthy of inclusion to assist the graduate student to obtain more accurate answers to a specific problem, or in some instances as a way

of attacking a particular problem. The three chapters selected for inclusion may assist you in the solution of a difficult problem in speech research.

The case study and case history (Chapter 12) provide a unique way of thoroughly examining a given individual, program, or incident. The single person or case constitutes the entire universe of the study. The investigator seeks information about an individual subject, or event, etc., through interview, inventory, tests, observation, etc. The individual subject is treated as the sole area of study.

The transitory nature of the speech act makes it difficult to measure. Yet many research problems demand the careful measurement of speech performance to determine whether any significant change has resulted. The chapter on measurement (13) may be very valuable to many graduate students who will be conducting significant investigations.

The recent developments of mass communication research in radio, television and film have opened a whole new area of possible investigation. To assist the student in this area a broad picture of research procedures and possibilities has been outlined in Chapter 14.

Section III, Reporting Your Results, has only one chapter, 15, "The Art and Science of Factual Reporting". And with this you have completed the general pattern of investigation at the graduate level. However, there is more to life than our individual efforts, and so that you may see yourself and your research against the perspective of others in the field, you should look at Section IV, Honoring Your Profession. No man, it is said, is an island unto himself. This is equally true in the great task of increasing knowledge in our field. We build on what others have developed before us; and in some small way we too may contribute to the field of speech, man's most important tool of communication and adjustment as well as the chief device by which he is led to incorporate the highest ideals into his own being. Speech is worthy of your best efforts, may you be worthy of the demands and opportunities it presents.

NOTES

1. *Bulletin on Graduate Study*, 1958-1959, Vol. 52, No. 11, May 1958, 9, Michigan State University Publication.

2. See Franklin H. Knowler, "Graduate Theses—An Index of Graduate Work in Speech" in any recent August issue of *Speech Monographs*.

3. The interested graduate student is referred to H. L. Ewbank, Sr., and others, "What is Speech? A Symposium", *Quarterly Journal of Speech*, XLI, (April 1955) No. 2, 145-153.

4. *Bulletin on Graduate Study*, 1958-1959, Vol. 52, No. 11, May 1958, 10, Michigan State University Publication.

5. The terms *thesis* and *dissertation* are sometimes used interchangeably. One speaks of a doctor's or a master's thesis, but rarely of a master's dissertation.

6. Clyde W. Dow, editor, "Abstracts of Theses in the Field of Speech, XIV," *Speech Monographs*, XXVI, No. 2, 87-148.

7. *Ibid.*, Ted W. Benedict, "An Experimental Study of Social Status as A Dimension of Ethos", 88.

8. *Ibid.*, M. Scheffel Pierce, "Methods of Experimentation in Radio Research and Correlates of Effective Radio Advertising," 117.

9. *Ibid.*, Bill G. Hulsopple, "The Development of a Graduate Achievement Test in Theatre", 124.

10. *Ibid.*, Samuel Glen Fletcher, "Hypernasal Voice: Its Relation to Growth Disturbance and Physiological Activity", 135.

11. *Ibid.*, Lucile Aly, "John G. Neihardt as Speaker and Reader", 99.

12. Constance Ruys, "The Netherlands National Theater: 1945-1955," Stanford University. *Speech Monographs*, XXIV, No. 2 (June 1957), 135. (Abstract of doctoral dissertation).

13. James A. Winans, 17-23.

14. Margaret Servine, "Fundamentals of Oral Reading", *Speech Monographs*, XXIV, No. 2 (June, 1957), 115-116. (Abstract of doctoral dissertation).

CHAPTER 2

Bibliographical Source Materials

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I. THE IMPORTANCE OF KNOWING ABOUT, AND HAVING, SOURCES OF MATERIALS

It is axiomatic that no person knows all that there is to know in all areas of knowledge, and that few, if any, persons know all that there is to know about their own area of specialization. Furthermore, it goes almost without saying that a knowledge of the literature of one's field is basic to advanced study and research.

Certainly, the body of literature associated with one's field serves several important purposes, among these being: (1) to acquaint one with what his colleagues are thinking and doing; (2) to suggest possible subjects for investigation; (3) to check against possible duplication; (4) to provide guide-lines for investigation—topics, sources, persons, etc.; and (5) to indicate the sources and repositories of items of information.

Everything from the formulation of the student's research problem to the securing of the most minute piece of "evidence" is, of course, dependent upon his possession of information. And, necessarily, this means that he knows the sources of information—the kinds of information that are available, where that information may be, and through what channels it can be secured. Furthermore, it means that he knows not only that there are books, journals, and other materials relevant to his field, but precisely the kinds and titles of these sources, as well as specialized guides in the form of bibliographies of bibliographies, bibliographies themselves, indexes, directories, etc. To be ignorant of these bodies of information is to be almost incapable of making even a start at investigation and research.

II. THE LIBRARY AND SIMILAR REPOSITORIES AS STARTING POINTS IN RESEARCH

Fortunately for all of us—irrespective of our areas of special interest—we are the inheritors of a tremendous array of resources and aids that are

only waiting to be used by us. And these are, in most instances, gathered at some more or less convenient points. Let us at this point merely suggest a few of these resources.

Libraries. We take for granted the existence of libraries in nearly all communities; and any library will provide some knowledge concerning virtually any subject that can be named. Perhaps more important for us here, however, is the fact that there are scores of specialized libraries in terms of subject matter, periods, or kinds of materials within a given subject-matter area. To know of these libraries—and to know how to use them—is an important part of the knowledge of the capable investigator.

Archives. Like the libraries, these repositories are certain to contain valuable sources of information. In fact, they may be conceived of as libraries of a very specialized type.

Headquarters of Organizations. Not exactly libraries in the usual sense of the term, these repositories of information are frequently both numerous and extensive; and their resources are likely to be extensive in terms of both primary and secondary materials. For instance, the headquarters of lecture bureaus have been profitable sources of data pertaining to the history of public address, the headquarters of professional and trade associations have been of assistance to researchers in the field of “communications in business and industry,” and the headquarters of governmental agencies have made available important information pertaining to studies in speech pathology and audiology.

III. RELATED TOPICS NOT DIRECTLY INCLUDED IN THIS CHAPTER

It is our purpose in this chapter to indicate sources of materials (libraries, general reference works, and reference sources in the field of speech). We shall note certain of the libraries that are of special interest to research workers in the several areas of speech and the relevant cognate areas; we shall note a number of types of general reference works not directly oriented to speech but still very relevant to it; and we shall consider a wide array of reference sources in speech.

In this chapter, however, we shall not explicitly discuss certain somewhat related topics at all, and others will be treated only briefly. While these are important to any investigation and research, it is assumed that knowledge of these topics has been secured prior to an advanced study of research methods.

Two topics not discussed at all are: (1) The organization and use of the library—the card catalog, the reference room, etc.; (2) bibliographies in speech texts.

We will treat, only briefly, the mechanics of compiling bibliographies, of note taking, and related matters. For a more detailed treatment the

student should study one or more of the manuals listed at the end of Chapter 15.

William Sattler, author of Chapter 3, writes:

Follow a Plan in Taking Notes. Many researchers find that a formula is needed in order to take notes well in their survey of knowledge. The pattern recommended here includes *an outline of the thesis* based generally upon the main steps in research, *selected quotations*, and *paraphrased statements*. These then would be (1) the problem, (2) hypotheses or purposes, (3) survey of literature, (4) procedures, (5) results, and (6) interpretation of results. In filling in the details, the thesis writer may use quotations from the material he is reading as well as paraphrasing, including his own special observations and discoveries.

Hit-and-miss tactics in note taking, particularly on important articles, usually mean that the thesis writer must later return to these sources many times. A good set of notes on the articles would have made this unnecessary.

A second practice that might also be employed is the preparation of an *abstract* of the article in which the reader reviews the entire article in his own words together with the use of occasional merged quotations. This formula forces the reader to go beyond the mere recording of materials, for the abstract calls for original thinking by the person doing the composing. Ordinarily the writer of the abstract needs to have done the preparatory work called for in the first formula recommended; namely, an outline of the thesis, selected quotations, and paraphrased statements. Whether the thesis writer chooses to follow formula number 1 or number 2 probably should remain a personal decision.

In many situations the student in his survey is mainly interested in only some details of a study. He may be interested principally in procedure or methods, analytical techniques, and measurement practices. When this is true, or when a summary of the findings is the primary goal, the researcher is justified in limiting his efforts to one or more of these matters.

The most obvious and perhaps common practice in taking notes on articles is simply copying quotations. Often these quotations prove to be of importance, but they may also prove to be meaningless when the researcher does not have the full context of the study before him. It would seem, therefore, that the *outline* or *abstract* would be preferable to complete reliance upon the copying of quotations.

Two final directions are these: (1) practice paraphrasing statements in your own words, and (2) whenever an unusual observation occurs to you write it down. The researcher should express these special observations and conclusions in fairly complete form, perhaps by writing on several cards or pages. Later, in the outlining and writing of the thesis such materials may often be used with very few changes. What this means is that the researcher is recording information and writing reactions at the same time, instead of keeping these two operations separated. In the case

of paraphrasing somewhat the same value seems to be operative, for the reader of literature is doing more than "clerk's work" when he forces himself to state some matters in his own words.

Gregg Phifer, author of Chapter 4, offers these suggestions:

Compiling the Bibliography. As each source is used, the serious scholar should prepare a bibliographical card immediately. Since research is spread over a period of time, and human beings are forgetful, it will be good to record every item consulted, useful or not. This may serve to prevent duplication of effort later on; when indicated, an annotation may be placed on the bibliographical card saying that the source is valueless and should (probably) be omitted from the final bibliography.

The bibliography may be arranged in whatever divisions seem most appropriate for the number and variety of sources. A short list, for instance, might need no division at all, or might be divided simply between primary sources and secondary materials. In a longer list, further subdivision according to the various types of sources is also appropriate.

Selection of Notes. Discrimination is needed in note taking. From the beginning the scholar should attempt to separate the valuable from the valueless, to reject the irrelevant or tangential, and to record only pertinent, valuable information. As the research proceeds, the scholar will become more and more skillful at selecting that which is valuable and refusing to waste time copying that which is not.

Despite the need for rejecting the irrelevant or valueless, however, the only rule-of-thumb the scholar can afford to adopt is this: "When in doubt, record." It is always easiest to make notes at or immediately after the first reading while the work is fresh in the student's mind. Material in the home library *may* be easy to obtain again; even there, however, someone else may have withdrawn it or a faculty member placed the book on reserve. If the material has come through inter-library loan from some other place, any recall of the material may be costly in time or money or both.

Form of Recording. Any graduate student embarking on a study should carefully review his note taking methods to be sure that they are adequate for the difficult task of graduate research.

Many factors enter into the choice of note cards or sheets. Most persons find 4 x 6 cards useful, though those whose handwriting is small and have no need for long or complex notes may find 3 x 5 cards more easily filed. On the other hand, others find that 5 x 8 cards are none too large. Some scholars recommend use of a good grade typing paper, cut to 5 x 8 size in a print shop. If at all possible, however, one size of card should be used for all notes.

Place one piece of information on one card. The first tendency is often to abstract one article on one card; frequently this puts together on the same card ideas and information that will appear in widely separated places in the finished paper. It may be possible to take the "one fact, one card" dictum too literally, but this is the only safe principle on which to

operate. Anything less will force the student to use the same card at several points in the final composition—an almost impossible task in serious writing—or to the additional labor of preparing two or three note cards on the basis of one card recorded from the original source.

Include the source on each note card. It is possible, though not always advisable, to construct some coding system for efficient recording of the source. In the preparation of a short research paper with few sources, a good “coding” scheme may work. In a complex study, with many different sources by the same author, such coding schemes tend to break down unless carefully developed and rigidly followed. Each card may also carry a “label” (a few key words in the upper left hand corner) useful both for a quick summary of the contents of the card and for classification of the cards in filing.

Many graduate students have notoriously bad handwriting. All such should be aware that many libraries have typing rooms or carrels where note cards can be prepared in this more legible way. Graduate students will scarcely need to be warned that penciled notes will smudge, and that ink is therefore indicated if note cards are to be handwritten.

With this orientation to the use of sources, we turn now to the source materials themselves.

IV. SOME LIBRARIES OF SPECIAL INTEREST TO RESEARCH WORKERS

Needless to say, one's own college, university, or community library will probably be a most useful aid in connection with research. Be this as it may, the researcher will probably wish to know of the existence of specialized libraries in his own field. For this reason, we are presenting a few *representative examples* of helpful and unique repositories which may be of interest to researchers in the field of Speech.

The Library of Congress, Washington, D. C. (Perhaps the largest single library in the United States; contains a copy of every book copyrighted in the United States.)

The New York Public Library, New York City, New York. (More than a large public library; contains large collections of reference materials in many fields, also an excellent theatre collection.)

The Clements Library of American History, Ann Arbor, Michigan. (An outstanding repository of materials in American History and related subjects.)

The Crerar Library, Chicago, Illinois. (An outstanding repository of materials in the Sciences.)

The Folger Library, Washington, D. C. (An internationally known repository of materials pertaining to Shakespeare and related subjects.)

The Harvard University Library, Cambridge, Massachusetts. (A good theatre collection.)

The Huntington Library, Pasadena, California. (An internationally known library of materials in the Humanities, with particular reference to Literature, and in aspects of the Social Sciences.)

The Newberry Library, Chicago, Illinois. (An outstanding repository of materials in the Social Sciences.)

The Yale University Library, New Haven, Connecticut. (Another good theatre collection.)

V. SOME TYPES OF GENERAL REFERENCE WORKS NOT DIRECTLY ORIENTED TO SPEECH

A. *Guides to Libraries and Library Resources*

Burton, Margaret: *Famous Libraries of the World*, London, 1937.

Downs, Robert B.: *American Library Resources: A Bibliographical Guide*, Chicago, 1951.

Esdaile, Arundell J. K.: *National Libraries of the World*, London, 1934.

Hutchins, Margaret, Alice S. Johnson, and Margaret S. Williams: *Guide to the Use of Libraries*, New York, 1936.

Winchell, Constance M.: *Locating Books for Interlibrary Loan*, New York, 1930.

B. *General Guides to Reference Works*

Hirshberg, Herbert S.: *Subject Guide to Reference Books*, Chicago, 1942.

Minto, John: *Reference Books*, London, 1929. (Supplement, 1931)

Mudge, Isadore G.: *Guide to Reference Books*, Chicago, 1936. (Also, Supplements)

Shores, Louis: *Basic Reference Books*, Chicago, 1939.

Winchell, Constance M.: *Guide to Reference Books*, Chicago, 1951. (Continuation of work by Mudge noted above.)

C. *Bibliographies of Bibliographies*

Besterman, Theodore: *The Beginnings of Systematic Bibliography*, London, 1935.

—: *A World Bibliography of Bibliographies and of Bibliographical Catalogues, etc.*, Third Edition, Geneva, 1955-1956.

Bibliographic Index (A Cumulative Bibliography of Bibliographies).

Bulletin of Bibliography, Boston, 1897-

Courtney, William P.: *A Register of National Bibliography*, London, 1905-1912.

Heyl, Lawrence: *Current National Bibliographies; a List of Sources of Information Concerning Books of All Countries*, Chicago, 1942.

Northup, Clark S.: *A Register of Bibliographies of the English Language and Literature*, New Haven, 1925. (Revised Edition, 1942)

Van Hoesen, Henry B. and Frank K. Walter: *Bibliography: Practical, Enumerative, Historical*, New York, 1929.

D. *Lists of Books and of Book Reviews*

Book Review Digest, New York, 1905- .

Catalogue General De La Librairie Francaise, Paris.

Cumulative Book Index, New York, 1928- .

English Catalogue of Books Published 1801-, London, 1864.

Evans, Charles: *American Bibliography, 1639-1820*, Chicago, 1903 and 1934.

Kelly, James: *American Catalogue of Books Published in the United States from January 1861 to January 1871*, New York, 1866-1877.

Publishers' Weekly, New York, 1872.

Roorbach, Orville: *Bibliotheca Americana, 1820-1852, 1852-1855, 1855-1858, 1858-1861*, New York, 1852-1861.

Sabin, Joseph: *Bibliotheca Americana*, New York, 1868-1937.

United States Catalogue, New York, 1900-1928.

E. *Special Bibliographies and Catalogues*

- Bateson, Frederick W.: *Cambridge Bibliography of English Literature*, New York, 1941.
- British Museum, Department of Printed Books: *Catalogue of Printed Books*, London, 1881-1900; Supplement, London, 1900-1905; New Edition, 1931-1949.
- Kennedy, Arthur: *A Bibliography of Writings on the English Language*, Cambridge, Massachusetts (Harvard University Press), and New Haven, Connecticut (Yale University Press), 1927.
- Peddie, Robert A.: *Subject Index of Books Published Up to and Including 1880*, London, 1933-1939.
- United States Library of Congress: *Author Catalog*, Washington, 1948- .
- . *Catalog of Books: Subjects*, Washington, 1950- .
- . *Catalog of Motion Pictures and Filmstrips*, Washington, 1953- .
- . *Catalog of Printed Cards*, Washington, 1942- .
- . *National Union Catalog*, Washington, 1953- .

F. *General Indexes to Periodical Literature*

- American Library Annual*, 1911-1918; 1956- , New York, 1912-1918; 1956- .
- International Index, a Guide to Periodical Literature in the Social Sciences and Humanities*, New York, 1916- . (Volumes 1 and 2 called *Readers' Guide to Periodical Literature Supplement*.)
- Poole's Index to Periodical Literature, 1802-1881*, Boston, 1882. (Supplements, 1882-1908.)
- Readers' Guide to Periodical Literature*, New York, 1900- .

G. *Guides to Newspapers and Microfilms*

- Ayer, N. W. and Sons: *Directory of Newspapers and Periodicals (Annual)*, Philadelphia, 1880- .
- Brigham, Clarence S.: *History and Bibliography of American Newspapers, 1690-1820*, Worcester, Massachusetts, 1947.
- Gregory, Winifred: *American Newspapers, 1821-1936*, New York, 1937.
- New York Times Index*, New York, 1913- .
- The Times, London: *Palmer's Index to the Times Newspaper, 1790-1941*, London, 1868-1943.
- . *Official Index for 1906-* , London, 1907- .
- United States Library of Congress, Periodical Division: *A Check List of American Eighteenth Century Newspapers in the Library of Congress*, (edited by Henry S. Parsons), Washington, 1936.
- Union List of Microfilms, 1942-1949*, Ann Arbor, Michigan, 1951.
- University Microfilms: *Dissertation Abstracts, 1940-* , Ann Arbor, Michigan, 1940- . (Entitled *Microfilm Abstracts, 1940-1951*.)

H. *Indexes to Government Documents*

- Ames, John G.: *Comprehensive Index to the Publications of the United States Government, 1881-1893*, Washington, 1905.
- Boyd, Anne M.: *United States Government Publications*, New York, 1950.
- Clarke, Edith F.: *Guide to the Use of United States Government Documents*, Boston, 1918.
- Hirshberg, Herbert S.: *Subject Guide to United States Government Publications*, Chicago, 1947.
- Poore, Benjamin P.: *Descriptive Catalogue of the Government Publications of the United States, 1774-1881*, Washington, 1885.
- United States Superintendent of Documents: *Tables of, and Annotated*

Index to, the Congressional Series of United States Public Documents, Washington, 1902.

—.: *Catalogue of the Public Documents of Congress and of All Departments of the Government of the United States, 1893-* , Washington, 1896- .

I. *Biographies*

American Men of Science, Lancaster, Penna., 1906 and later.

Biography Index, New York, 1947 and later.

Current Biography, New York, 1940 and later.

Dictionary of American Biography, New York, 1928-1936 and Supplements.

Dictionary of National Biography, London, 1885-1901 and Supplements.

Who's Who in America, Chicago, 1899 and later.

Who's Who in American Education, Nashville, Tennessee, 1928 and later.

Who Was Who in America, Chicago, 1942 and Supplements.

J. *Dissertations and Theses (Not in the Field of Speech)*

Gilchrist, Donald B.: *Doctoral Dissertations Accepted by American Universities, 1933-1955*, New York, 1934-1955.

Palfrey, Thomas R. and Henry E. Coleman: *Guide to Bibliographies of Theses, United States and Canada*, Chicago, 1940.

United States Library of Congress: *List of American Doctoral Dissertations Printed in 1912-1939*, Washington, 1913-1940.

K. *Abstracts, Bibliographies, Indexes, and Manuals for Special Fields*

Art

Art Index, New York, 1930- .

Education

Education Index, New York, 1930- .

History and Social Sciences

Public Affairs Information Service, New York, 1913- .

Social Science Abstracts, Menasha, Wisconsin, 1929-1933.

Language and Literature

Cross, Tom P.: *Bibliographical Index to English Studies*, Chicago, 1947.

Spargo, John E.: *A Bibliographical Manual for Students of the Language and Literature of England and the United States*, Chicago, 1956.

Psychology

Psychological Abstracts, 1927- .

Psychological Index, Princeton, 1895-1936.

Sciences

Physiological Abstracts, London, 1916- .

Science Abstracts, London and New York, 1898- .

VI. SELECTED REFERENCE SOURCES IN SPEECH

A. *Bibliography of Bibliographies in Speech*

Knower, Franklin H.: "A Selected Bibliography of Bibliographies for Students of Speech," *Southern Speech Journal*, 17 (1951), 141-153.

B. *General Bibliographies in Speech*

Thonssen, Lester, and Elizabeth Fatherson: *Bibliography of Speech Education*, New York, 1939.

—, Mary Margaret Robb, and Dorothea Thonssen: *Bibliography of Speech Education, Supplement: 1939-1948*, New York, 1950.

C. *Indexes to Dissertations and Theses in Speech*

- Auer, J. Jeffrey: "Doctoral Dissertations in Speech: Work in Progress," *Speech Monographs*. (Annually since 1951.)
- Dow, Clyde W.: "Abstracts of Theses in the Field of Speech," *Speech Monographs*. (Annually since 1946.)
- Knower, Franklin H.: "An Index of Graduate Work in the Field of Speech," *Speech Monographs*. (Annually since 1935; the 1935 issue includes the period 1902-1934; the 1945 issue also contains a Combined Index for the years 1902-1944.)

Note: The Speech and Hearing Science portion of the Knower Index appeared annually in the *Journal of Speech and Hearing Disorders* until 1960; beginning with 1960, in *Deafness, Speech, Hearing Abstracts*. The Theatre section appears annually in the *Educational Theatre Journal*.

D. Indexes to Selected Speech Periodicals

- Ehninger, Douglas: "A Classified Title and Author Index to the *Southern Speech Journal*, Volumes I-XXII (1935-1957)," *Southern Speech Journal*, 23 (1958), 142-164.
- Fairbanks, Grant, ed.: "Cumulative Index, Volumes 1-15," *Journal of Speech and Hearing Disorders* (March, 1951), Supplement.
- Gray, Giles W.: *Index to the Quarterly Journal of Speech, Volumes I to XL, 1915-1954*, Dubuque, Iowa, 1956.
- : "Index to *Speech Monographs*, Volumes I-XXVI (1934-1959)," *Speech Monographs*, 27 (1960—Special Issue).
- Knower, Franklin H.: *Table of Contents of the Quarterly Journal of Speech, 1915-1956, Speech Monographs, 1934-1956, and the Speech Teacher, 1952-1956, with a Revised Index Compiled Through 1956*, Baton Rouge, Louisiana, 1957. (Present Address: Indiana University, Bloomington, Indiana.)
- Oyer, Herbert J. and Keith Brooks: "An Index to the *Central States Speech Journal*," *Central States Speech Journal*, 10 (1958), 61-70.
- Welker, David, ed.: *Ten Year Index of the Educational Theatre Journal: 1949-1958*, East Lansing, Michigan, 1959.

E. Miscellaneous Bibliographies, Guides, and Indexes

- Baker, Blanch: *Dramatic Bibliography*, New York, 1933.
- : *Theatre and Allied Arts, a Guide to Books, . . .*, New York, 1952.
- Caplan, Harry, and Henry H. King: "Dutch Treatises on Preaching: A List of Books and Articles," *Speech Monographs*, 21 (1954), 235-247.
- : "Pulpit Eloquence: A List of Doctrinal and Historical Studies in English," *Speech Monographs*, 22 (Special Issue, 1955), 5-159.
- : "Pulpit Eloquence: A List of Doctrinal and Historical Studies in German," *Speech Monographs*, 23 (Special Issue, 1956), 5-106.
- : "Scandinavian Treatises on Preaching: A Book-List," *Speech Monographs*, 21 (1954), 1-9.
- Directory of the Speech Association of America*. (Published annually; contains Check List of textbooks, a roster of Speech Departments and of Chairmen of Speech Departments in the United States.)
- Gilkinson, Howard: *Outlines of Research in General Speech*, Minneapolis, Minnesota, (Burgess Publishing Co.), 1943.
- Haberman, Frederick W.: "A Bibliography of Rhetoric and Public Address." (Annually since 1948; in *Quarterly Journal of Speech* for years 1948-1950, and in *Speech Monographs* beginning with 1951; now compiled by James W. Cleary.)
- McDowell, John H., ed.: "A Bibliography on Theatre and Drama in American Colleges and Universities, 1937-1947," *Speech Monographs*, 16 (1949), 1-124.

Santiago, Florence M.: *Inexpensive or Free Materials Useful for Teaching Speech*, Ann Arbor, Michigan, 1959.

Thomas, Gordon L. and David Potter: "A 'Discography' of Commercially Recorded Speeches," *Speech Teacher*, 6 (1957), 18-26.

VII. SELECTED LIST OF PROFESSIONAL ORGANIZATIONS OF INTEREST TO PERSONS IN THE FIELD OF SPEECH

(This list is presented here so that a researcher in any area of Speech may know of the relevant professional organizations and the major publications sponsored by these organizations.)

A. *General (Representing All Areas of Speech)*

1. Speech Association of America
Quarterly Journal of Speech
Speech Monographs
Speech Teacher
2. International Society for General Semantics
Etc.: A Review of General Semantics
3. National Society for the Study of Communication
The Journal of Communication
4. Central States Speech Association
The Central States Speech Journal
5. New England Speech Association
(Newsletters)
6. Pacific Speech Association
(Newsletters)
7. Southern Speech Association
The Southern Speech Journal
8. Speech Association of the Eastern States
American Speech
9. Western Speech Association
Western Speech

B. *Specific (Representing an Area of Speech)*

1. Rhetoric and Public Address Area
(No Speech organizations *per se*, but the following are related)
 - a. American Studies Association
American Quarterly
 - b. American Forensics Association
The Register
 - c. (The national and regional historical societies)
2. Speech and Hearing Science Area
 - a. American Speech and Hearing Association
ASHA
Deafness, Speech, Hearing Abstracts
Journal of Speech and Hearing Disorders
Journal of Speech and Hearing Research
 - b. Acoustical Society of America
The Journal of the Acoustical Society of America
(Published by the American Institute of Physics)
 - c. American Hearing Society
Hearing News
 - d. American Institute of Physics
Noise Control

- e. American Medical Association
Archives of Otolaryngology
 - f. College of Speech Therapists
Speech Pathology and Therapy
 - g. Conference of Executives of American Schools for the Deaf
The American Annals of the Deaf
 - h. Convention of American Instructors of the Deaf
The American Annals of the Deaf
 - i. National Hospital for Speech Disorders
Logos
 - j. Volta Bureau
The Volta Review
3. Speech Education Area
(See *The Speech Teacher*; also, note the following related organizations)
- a. The National Education Association
The N. E. A. Journal
 - b. National Association of Elementary-School Principals
The Bulletin of the National Association of Elementary-School Principals
 - c. National Association of Secondary-School Principals
The Bulletin of the National Association of Secondary-School Principals
4. Television-Radio Area
- a. American Council for Better Broadcasts
Newsletter
 - b. Association for Professional Broadcasting Education
The Journal of Broadcasting
 - c. National Association of Educational Broadcasters
The Association for Education by Radio and Television Journal
5. Theatre-Interpretation Area
- a. American Educational Theatre Association
The Educational Theatre Journal
 - b. American National Theatre and Academy
Chapter One
World Theatre
 - c. Children's Theatre Conference
Newsletter
 - d. National Collegiate Players
Players Magazine
 - e. National Thespians
Dramatics

CHAPTER 3

The Library Survey

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Library investigations in which the graduate student engages may be conceived in at least three different forms. In this chapter the major points of view are: (1) Survey in the sense of ascertaining at a particular time the status of knowledge concerning principles, methods, institutions, or events, together with interpretations of the data which have been assembled; (2) Data collection showing the existing status of knowledge, but including as well some historical materials, recommendations, or applying standards of criticism for purposes of evaluation; and (3) Survey in terms of what is commonly called "Review of Literature," "Previous Studies," or "Related Studies." The latter use of library survey has a bearing upon any research investigation, for the researcher does not begin at the "zero" level of knowledge when he undertakes his task. In other words, the presumption is that previous investigators and writers, either directly or indirectly, have expressed reports and inferences that have some relevance to the project the student wishes to pursue. When, however, library study in perhaps isolated cases is not rewarding in a substantive sense, there are still further ways in which reading is helpful. Not the least of these concerns the discovery of procedures and special techniques used in research by other investigators. Frequently, for example, the student learns new techniques from reading articles in his field of interest and in related subject matter fields.

LIBRARY SURVEY AS A RESEARCH METHOD

The term "survey" is often used by investigators to refer to studies carried out by direct inquiry through interviews, questionnaires, and related data-gathering procedures. (See Chapter 11) Significant in this regard is that such studies are dependent upon "direct contact with those persons, or a sample of those persons, whose characteristics, behaviors or attitudes are relevant for a specific investigation."¹ When, however, the knowledge can

be obtained from printed sources in libraries or archives, the library survey is employed to assemble, classify, and perhaps regroup information which has been written for other purposes.

DEFINITION OF LIBRARY SURVEY

The scholar who employs documentary materials in making a survey seeks to discover the existing status of principles, methods, institutions, or persons in terms of his research objectives. Usually such studies are concerned with *present conditions*—or *present status*—as reflected in written sources. On the other hand, it is possible to refer to library survey with regard to *conditions at a particular time*, either past or present. Usually, however, *past status* is interpreted as history, particularly if the problem under consideration is reported at more than one interval in a time period. Library survey as a method of research can therefore be broadly defined as *existing status*, although the idea of relative recency or *present status* is the direction most surveys take. By and large this interpretation will be followed in analyzing and explaining library survey studies throughout this chapter.

It should be observed that some library survey investigations have a close relationship to what some writers call the *normative* and *descriptive* methodologies. When applied to existing status and to the use of documentary materials, the library survey which discovers norms, patterns, or standards may indeed be called normative. With these same limitations in force as reflected in the materials used and in existing conditions, the library survey can likewise be conceived of as descriptive in nature. The terms normative and descriptive may however have a broader meaning than the depiction of *present conditions* or *existing status*. In this sense, then, it is perhaps more fruitful to give primary attention to types of library surveys and suggestions for executing reviews of literature on a problem, rather than to these essentially abstract labels. What is more, the typical library survey is likely to arrive at norms or standards, and in the process, to engage in description as well.

TYPES OF LIBRARY SURVEY STUDIES

Two years before his election to the presidency, Abraham Lincoln said, "If we could first know where we are and whither we are tending, we could then better judge what to do and how to do it." In carrying out the Lincoln pronouncement, the student should recognize that in a library survey he is making an assessment of present conditions. He may do this in four ways: First, the researcher may survey the existing status of his subject and then give interpretations of his findings; secondly, he may include some historical materials together with the materials dealing with the present; he may, thirdly, add a series of recommendations based upon

his findings; and finally, he may engage in criticism after having completed his survey.

It is at once clear that survey plus interpretations is the type of research which might be called the "pure" library survey. On the other hand, the researcher can offer a valuable contribution if he can give recommendations showing new directions that might profitably be followed. In many cases, a study is not a fruitful one unless the researcher can at least offer tentative suggestions that might bring about better conditions in the future.

The terms "history" and "criticism" are of course distinct research methods, but again, it would be a serious limitation upon free inquiry to say that the library survey method could at no time include history or criticism. When the study is fundamentally historical or critical, one should recognize the study in terms of these labels. Less pronounced dependence on history and criticism, and a corresponding increase of attention given to *existing status* may permit us to think of the study as a library survey. Apparently, then, the distinguishing factor concerns the degree of special emphasis that the researcher gives to his study when he uses material from the past, or engages in judgment-making.

Existing Status and Interpretation. One may present data in either verbal or quantitative form without determining what is significant about these data. This type of study—the failure to provide interpretations—shows merely that the student has demonstrated proficiency in data-gathering. What distinguishes the research study, apart from the data that are set forth, concerns the meaning that can be abstracted from information. These questions should be carefully pondered: What special meanings are suggested by the facts presented? What discoveries follow from the central tendencies, differences, and agreements that are shown? What ideas arise from a detailed and systematic survey which readers who depend upon informal reading of the same source materials are likely to miss? Interpretations given to data should provide the reader with points of view which he can derive in two ways only: by a study of the research report, or a personal investigation of the research problem.

In "What Experts Say About Nasality," Beighly² effectively illustrates the use of categories as a basis for classifying materials and the directions which may be followed in interpreting data. Views concerning *rhinolalia* from fifty-three different authors are given in regard to a dozen or more specific aspects. Differences, similarities, and special meanings of facts and inferences about nasality are clearly set forth. The study answers the question: What inferences can be made from the mass of information that has been classified? Hargis³ in his study of the general speech major also provides interpretive conclusions which help to explain the meaning of statistical data dealing with areas of speech, hours of credit in these areas, and variations in requirements for the speech major among some 200 colleges.

A study using an especially revealing form of interpretation of data has been published by Clevenger⁴ in his review of experimental research on stage fright. Basic findings from research were explained in terms of specific problem areas. The author then committed himself to hypotheses which appear to follow from the findings of the various investigations. In other words, an hypothesis is stated with respect to each of the problem areas. This form of interpretation of data based upon the library survey method is non-typical, but it is clearly valuable. The reader cannot refer to the researcher's study in a derogatory manner by saying that the study failed to identify conclusions, to pull together "loose ends," to introduce an element of newness or discovery.

As a rule, library survey studies are probably less definitive than the Clevenger investigation. The procedure that this writer followed is nevertheless one that should be understood by the student who uses the survey method in research. In addition, therefore, to classifying data, the student will be well advised to spend considerable time in determining the special significance of his materials. This does not mean necessarily the formulation of hypotheses, but it certainly means that the researcher should present clearly stated findings or conclusions.

Studies concerned with existing status and interpretations of findings as reflected in written sources appear to be relatively common at the M.A. level. The following theses titles have been taken from the annual reports published in *Speech Monographs*, "Graduate Theses—An Index of Graduate Work in Speech," compiled by Franklin H. Knower. As presented here, the titles are classified according to commonly established areas of speech.

Public Speaking and Group Communication:

Carroll, Philip S., *A Comparison of Rhetorical, Psychological and Mathematical Studies on the Nature and Use of Information*. M.A. Thesis, University of Denver, 1956.

Sanborn, George A., *The Treatment of Motivation in Speech Textbooks for College Students*. M.A. Thesis, Cornell University, 1954.

Travis, Dean F., *A Summary and Evaluation of Recent Research in the Verbal-Logical Processes of Interest to Speech Teachers*, M.A. Thesis, State University of Iowa, 1949.

Oral Interpretation:

Evans, Elsie F., *Some Contemporary Concepts of Bodily Action as Related to the Oral Reader*. M.A. Thesis, University of Michigan, 1955.

Hoopes, Ned, *Review of Criteria for Evaluation of Literature to be Used in Oral Interpretation*. M.A. Thesis, Brigham Young University, 1957.

Theatre:

Durrett, Robert, *A Survey of College Level Text Books for Stage Directing*. M.A. Thesis, Texas Christian University, 1957.

Engers, Kathleen, *The Study of the Theories of Acting as Proposed by Modern Actors and Actresses*. M.A. Thesis, Catholic University of America, 1949.

Radio and Television:

Woods, David L., *The Criteria of the Radio and Television Criticism of Gilbert Seldes*. M.A. Thesis, Stanford University, 1955.

Dimon, Richard B., *A Descriptive Study of the Status of Subscription Television*. M.A. Thesis, University of Southern California, 1954.

Speech Correction and Audiology:

Greiner, Alice, *Cerebral Palsy: A Review of the Literature According to Interest Group with Annotated Bibliographies*. M.A. Thesis, Bowling Green State University, 1949.

Mindness, Mary, *An Analysis of Fictional Literature for Material Suitable for Use in a Program of Bibliotherapy for Adolescent Stutterers*. M.Ed. Thesis, Boston University, 1957.

Existing Status and History. Researchers who are primarily interested in the survey of present conditions often find that they wish to include some historical materials. At times, for example, one notes titles of studies using the words "history and present status," "trends," and indeed "survey" in the sense of both past and present. As suggested earlier, if the idea of development or change is predominant during stated time periods, the library survey study is more accurately called an historical study. Presumably, the principle of "relative recency" and not "present moment" characterizes the library survey study which includes some data from the past.

In the Knowler and Newhouse⁵ report concerning the number and nature of bachelor's degrees in speech granted during the years 1948, 1949, and 1950, the statistical variations during these years are obviously a matter of special interest. Similarly, Campbell⁶ in his article on the American National Theatre Academy uses background conditions which are relevant to the accomplishments of ANTA at the time of writing. In still another study, Becker⁷ used a time period from 1891 to the present when showing the relationship between rankings and speaking positions in the contests of the Northern Oratorical League. The relationships between these two factors were the point of special interests in this study, rather than shifts during the extended time period.

The examples cited show wherein elements of the "historical" are merged with present conditions. A fair conclusion in this regard is that in the case of doctoral studies it seems advisable to stress history to a marked degree, and not to be content with the present alone. Such studies provide

continuity descriptions, trends, and changes which are likely to be "more complete and valuable knowledge"⁸ than studies limited to the depiction of the present.

Existing Status and Recommendations. Investigations which report conditions and trends may form the basis for professional judgments that suggest what the future trends should be. Answers to the questions "Where are we?" and "How Far Have We Come?" merely constitute the information which must be known in order to decide upon recommended changes. In part, at least, the value of this type of library survey stems from the absence of complete preoccupation with the present.

Willis⁹ in his article on research in radio and television devotes one-third of his report to recommendations and interpretations for these directions in future research. Questions such as these are directly posed and answered: What types of research should be done at the M.A. and Ph.D. levels? and What are some of the special problems which the scholar faces in research in radio and television? In addition to the "recommendations" and "special problems" phases of the study, the article included what is ordinarily given in library survey studies: historical background, appropriate categories under which data are classified, and quantitative data expressed by frequency and percentages.

Present status together with recommendations constitute the pattern of a number of other studies which are based largely on written materials. Lee's¹⁰ article called "General Semantics 1952," Johnson's¹¹ report on speech defectives in the military service, the certification report by Karl F. Robinson,¹² and the report on theatre in the United States by Barnard Hewitt¹³ are excellent examples. In each of these studies special emphasis is given to recommendations, although it should be observed that adequate data regarding present conditions are also presented.

Existing Status and Criticism. Instead of executing a research project limited to "the interpretations of evidence in selected texts," "acting techniques," "group therapy in speech correction," "language automation," or any other survey, the scholar may establish standards for appraising principles and practices. When such judgment-making is the primary element in the thesis, the research method is called "criticism." With somewhat less attention being given to evaluation, the study qualifies as library survey in the sense in which it is here conceived. And by the same token, it is clear that library investigation is a necessary step in criticism, just as in historical studies.

Virtually any library survey may include criticism. When this is done the researcher should have a clear idea of precisely what criteria he is following in making his evaluation, rather than depending upon a set of vaguely understood conditions. The latter is likely to yield private notions concerning value or simply general impressions, but the reader does not know how the researcher arrived at his conclusions. Briefly, then, the fac-

tor of reliability—agreements by others concerning judgments—cannot be determined without knowing the standards for judgments that are used.

Some library survey studies successfully combine objective reporting and criticism in almost equal proportions. Behl,¹⁴ for example, followed this procedure in describing the framework and special regulations of the Security Council. In his statement of objectives, he gave equal value to the descriptive and evaluative goals of his study. Similarly, these two elements are clearly discernible in his published study, although *existing status* and *criticism* are not always separated in a mechanical fashion. It may be stated, at least tentatively, that the inclusion of criticism as a part of the library survey is likely to advance knowledge in a more significant way than the “pure” survey of documentary materials.

PROCEDURES IN LIBRARY INVESTIGATIONS

While it is doubtless true that “investigators do not march to their goal with ease and directness,”¹⁵ the student will nevertheless gain some help by an explanation of specific procedures or stages in research. The procedures which follow cannot however be executed in an assembly line fashion, even though they appear to be presented in a time-sequence form. Unproductive attacks on a problem are common, but with thoughtfulness and study these difficulties can usually be met. Moreover, the scholar will be concerned with several aspects of his study at the same time, he will find that at times he must back-track and begin again, and he will find that some precautions which he should have taken must be instituted. These difficulties may in varying degrees be expected: Nevertheless, certain procedures which generally apply to most types of research may make it possible for the student to execute his study with the minimum of unnecessary floundering.

Select a Problem That is Limited in Scope. The student who does a library survey study already has a subject which is limited horizontally, that is, in terms of time. His concern therefore relates to the type of source materials he wishes to study and the particular aspects to be considered. Three suggestions may prove to be useful: (1) Study titles of theses recorded in the *Knower Index* in an effort to discover limitations imposed on subjects simply through titles. (2) Write the title for your planned thesis using a long and explicit statement, even though this may not be the title finally chosen.¹⁶ (3) Identify inclusions and exclusions by using a diagram, perhaps literally “drawing a circle around your subject.”

This question is often asked: “When is the student qualified to establish precisely the scope of his study?” Generally speaking, this is possible after some preliminary study of his materials during which time the student in effect is conducting a “pilot study.” Certain changes may indeed be made later, but one should not collect data in a random manner for an extended period of time. It is especially unwise to wait until the composition stage

or after the thesis has been written to answer questions in regard to limitations placed upon the subject under investigation.

Review Previous or Related Studies. (See “Library Survey as a Stage in Research,” in the latter part of this chapter).

Have a Significant Theoretical Basis for Your Study. The scholar who does a library survey study must do more than speculate in regard to “Wouldn’t it be nice to know?” . . . three views on acting, what attention is given to listening in speech texts, certification requirements in speech correction in ten states, or any subject of like nature. Apart from this rather meaningless question, the researcher is charged with the problem of *Why*. He should have significant reasons for his survey. This means that the thesis writer should formulate a body of theory which shows why the survey should be undertaken. Even a small advance into theoretical foundations will make the library survey a more challenging study, and possibly a study suitable for a doctoral investigation.

Formulate Questions to be Answered. A helpful principle to keep in mind is that “researchers are not interested in knowing everything about everything.”¹⁷ The student must do more than write a few paragraphs which describe his subject in a general way, because vagueness in regard to objectives usually results in random exploratory research and writing. Constructive tips to follow are: state precise objectives, perhaps numbered 1, 2, 3, etc.; formulate hypotheses or expectations; or set forth problems to be answered in the form of questions. Clarity in regard to purposes permits the researcher to carry out “selective” analysis which is basically characteristic of research.

Establish Categories to Be Used in Classifying Material. Exploratory reading on your subject, your statement of objectives, and the nature of the particular subject under investigation should help you to determine the main divisions and sub-divisions of your problem.

Clevenger and Phifer used a classification scheme relevant to their particular problem in a survey of stage fright as developed in representative college basic speech texts.¹⁸ A condensed outline showing major categories is here reproduced:

- I. Information on Stage Fright in Pre-1936 and Post-1936 Books
- II. First Considerations Regarding Stage Fright
 - A. Description of stage fright reactions
 - B. Glandular, visceral, and muscular changes
 - C. Nervous tension as a natural experience
- III. Causes of Stage Fright
 - A. Fixed feelings of inferiority
 - B. Conflict between the withdrawal tendency and the communicative urge
 - C. Unpleasant speaking experiences
 - D. Fear of experiencing fear
 - E. Unfamiliarity of the speech situation

F. Failure to prepare adequately

IV. Cures for Stage Fright

A. Techniques used well in advance of the performance

B. Techniques of speech preparation

C. Techniques to use immediately before rising to speak

D. Techniques to employ while speaking

V. Conclusions

Virtually any subject—style, delivery, evidence, stagecraft, selected speech disorders—has special aspects or divisions appropriate to that subject. These types of categories may be called subject-matter categories, and are perhaps used most widely in library survey studies.

Considerable progress in the development of categories which apply to communication, either oral or written, has been made by social psychologists and political scientists. These category systems are applied in studies which are referred to as “content analysis.” The student engaged in library survey studies may profitably utilize the more rigorous systems of categories which have been used in some content analysis studies.

Content analysis has been defined by Berelson as “a research technique for the objective, systematic, and quantitative description of the manifest content of communications.”¹⁹ The idea of exactness, objectivity, agreement among several coders, and the use of categories which are mutually exclusive are fundamental to successful content analysis studies. In these respects, it is perhaps safe to say that the typical library survey study is deficient, assuming for the moment that it is desirable to introduce a high degree of exactness to all library survey studies. Some of the types of categories which Berelson has established in *Content Analysis in Communication Research* include the following:

1. *What is said categories.*

- a. *Subject matter:* (Subject matter categories either general or specific, including proper names and place names)
- b. *Direction:* (Pro or con treatment of the subject matter)
- c. *Standard:* (Criteria used for determining the pro or con treatment)
- d. *Values:* (Theme categories showing wants, objectives, goals)
- e. *Methods:* (The means to be employed to achieve goals)
- f. *Authority:* (The person, group, or object in whose name a statement is made)
- g. *Target:* (The group to whom a particular communication is directed)

2. *How it is said categories.*

- a. *Form of statement:* (Grammatical and syntactical forms, including fact, inference, and judgment statements)
- b. *Intensity of statement:* (Degree of strength such as positiveness of statement)
- c. *Device:* (Types of argument, forms of support, figures of speech, and fallacies)

The categories used in analysis are expected to be applied to communi-

cation content by two or more “coders.” That is to say, it is expected that *reliability* should be achieved by having several people classify the same materials and reach a fair degree of agreement. In providing a basis for classifying written materials, the student researcher should decide upon the *units* which are to be placed in the several categories. These may include *individual words, phrases, sentences, paragraphs*, or perhaps *lines* or *column inches*.

Plan in Regard to the Use of Tables and Forms for Reporting Data.

The way in which data are collected has a bearing upon the form in which these data can be given in the thesis. It is therefore important to know to what extent you expect to rely upon descriptive writing, tables showing frequency, percentages, correlations, and perhaps the technique of listing items. Decisions should be made concerning these matters either before data are collected or in the early stages of data-collection.

Prepare Tentative Outlines for Your Study. Again, the student should be thinking about the basic design of his study both before he begins his research and while his study is being investigated. In this regard, the researcher should of course have an open mind, because he often will find it advisable to modify his early outlines.

VERBAL AND QUANTITATIVE REPORTING

In library studies, as in other research, the investigator must determine to what extent he should use verbal description as contrasted with quantitative reporting. Research studies, of course, generally use both verbal and quantitative procedures. Thus, the point to keep in mind concerns when one of these practices should be used in preference to the other.

The position taken in this chapter is that neither procedure has a necessary superiority which relegates the other to a low position of value. Among studies named earlier in this chapter, the following were largely verbal descriptions: Behl on the United Nations Security Council, Beighly concerning nasality, and Campbell on “A National Theatre in America.” These studies utilized some quantitative reporting, but principally they relied upon verbal description. A greater use of quantitative symbols is present in the surveys by Hargis concerning the speech major, Knower and Newhouse on the bachelor’s degree in speech, and Willis on research in radio and television. These examples indicate that the subject matter studied and the specific objectives of the investigator determine to what degree a study should be presented in verbal or quantitative form. It would seem, however, that primary dependence upon verbal description is appropriate under these conditions: When the subject concerns a complex concept, when totality is more important than separate items that are counted, when the underlying meaning of materials is especially important, and when the presence or absence of an aspect of the materials is more significant than a numerical report concerning frequency of occurrence.

Under these conditions the thesis can attain the accuracy and exactness expected of research without depending to a marked extent upon quantification. The writer may be fully justified in using words such as "often," "usually," "rarely," "primary emphasis," "more," "less," and "increase," assuming of course that he gives indications that prove his assessment to be correct.

As applied to the library survey, these suggestions concerning quantification should be kept in mind: (1) Quantify when a high degree of precision is required, (2) when objectivity in reporting is needed (data that are independent of the individual observer), (3) when the data are so extensive that verbal reporting cannot be used, and (4) when exact inter-relationships among categories are important. It should of course be observed that sheer accumulation of facts can be meaningless, unless it can be shown that counting yields answers about matters of significance. Hence, the student who uses quantitative procedures in a library survey study should have a sound theoretical basis for his counting of items. "Number may well be our most important avenue to progress," but if true, scholars should exert their talents and energies in the direction of quantifying what is especially relevant and significant.

What has been said concerning verbal and quantitative reporting is referred to in these words by Wellek: "It is time to break definitely both with the meaningless accumulation of facts, mere antiquarianism, and also with the vague expansionism which has submerged literary studies in general cultural history."²⁰ These indictments represent serious charges that are potential dangers which researchers face. Yet basically, the problem is more fundamental than "meaningless accumulation of facts" and "vague expansionism." The researcher who develops a significant theoretical basis for his study and who identifies his objectives or hypotheses will have taken a bold step toward overcoming such criticisms. Simply to be forewarned permits the thesis writer to plan wisely in regard to his use of verbal and quantitative forms of reporting.

VALUES AND LIMITATIONS OF LIBRARY SURVEY RESEARCH

It is clear from a study of the Knower reports, "Graduate Theses—An Index of Graduate Work in Speech," that the library survey thesis is carried out frequently at the master's level and infrequently at the doctoral level. This arises largely because the research student is expected to discover "his own data and answers for ever-changing questions."²¹ The effective library survey study does precisely this—new data are discovered through the analysis of printed materials designed for a purpose different from the purpose of the researcher. Apparently, however, many writers of theses are unable to discover significant new data, hence the tendency to regard the library survey as suitable largely for the term paper or master's thesis.

A number of values may nevertheless be given for library survey studies. In the main, as with any research method, values are conditioned by the real worth of the specific problem as well as by the procedures employed. With these factors identified as relevant matters, the potential values of the library survey can be named: (1) the library survey study discovers the existing status of knowledge on a given subject which is probably known only vaguely by others; (2) shows changes that have occurred with relation to the past; (3) shows agreements, differences, central tendencies or norms among writers included in the survey; (4) prepares the student for later research studies; (5) shows "gaps" in present knowledge; and (6) provides the basis for recommendations that will change present conditions. In addition to these values, as stated earlier, the library survey method is applied to a greater or less degree in all types of research.

The values named above are fairly standard conceptions of the potential usefulness of the library survey method. More important, perhaps, are circumstances that give special significance to library survey studies. First, when an area of knowledge is changing quickly, the survey is especially appropriate. The study on language automation by Peterson²² and on information theory by Drum²³ are examples illustrative of this conception. A second condition that provides the library survey study with added significance is operative when the survey may lead to *theory construction* in the manner in which Fairbanks interpreted the speech mechanism as a servosystem.²⁴ Still a third special virtue is operative when the researcher can present his data in a new form or arrangement. Finally, and perhaps most importantly, new types of tools or techniques may be employed in the library survey study. Non-typical forms of description, measurement, and evaluation, including statistical methods, appear to be ways that can be employed to make the library survey study achieve greater significance.

The advances made in the field of content analysis, referred to earlier in this chapter, probably represent one of the best approaches to the use of new tools for carrying out survey studies. Lown²⁵ followed the principle of content analysis in his study of ways in which business and the businessman were depicted in American plays prior to the Civil War. He sought to determine: "(1) how the various businessmen in the plays were characterized; (2) what the plays revealed about attitudes toward their businessmen; and (3) the relationship, if any, between business as depicted in the plays and the concurrent economic conditions of the nation." Categories such as "bankers good" and "bankers villainous" were identified, as well as hosts of others including "shopkeepers," "innkeepers," "Yankee Peddlers," and "traders." McGranahan and Wayne,²⁶ again in the area of theatre, studied the *themes* of 45 American and 45 German plays staged in 1927. By identifying various themes such as *love*, *morality*, *idealism*, *power*, *career*, and *outcast*, these researchers were able to note the central tendencies or norms of the plays of the two countries. Shepard²⁷ in what might be called a pioneer study in content analysis studied the subject matter and political symbols used by Henry J. Taylor. Similarly, quantification procedures

were used by McIntyre²⁸ in identifying the existing status of discussion in terms of articles published in business and speech journals.

These examples are illustrative of present-day practices in applying quantification measures to the materials used in library survey studies. What emerges is the "discovery of new data" which would not have been possible without the use of non-typical procedures. It should be emphasized again, however, that these data are not significant unless the researcher formulates important objectives or hypotheses which determine the nature of the data to be assembled.

Weaknesses associated with the library survey may be inferred from what has already been reported in this chapter. First, many scholars question whether the results of a library survey constitute "discovery" or a contribution to knowledge. That is, has the researcher discovered facts and interpretations which advance knowledge? This danger is ever present when one deals with *existing status* as represented in printed sources. The difficulty can be overcome at least in part by wise problem selection, theory building, and identification of clear objectives. Moreover, all that has been said concerning "Procedures for Library Investigations" and special conditions, including the use of new tools in analysis, help to make the survey significant as research. Another and related weakness of the library survey is that the researcher is preoccupied with the present, with what may be known, instead of the testing of new forms and methods. This same indictment or a similar one, however, may be directed against other types of research, including history and criticism. In each case also the solution is much the same: New or fresh insights should result from the study.

LIBRARY SURVEY AS A STAGE IN RESEARCH

In addition to the library survey as an independent type of research, investigations of all kinds also utilize library study as a preliminary stage in research. Commonly, for example, six steps are identified in research, although a given investigator may not necessarily carry out each of these steps. Research in its complete form follows this pattern: (1) *problem formulation*, (2) *review of knowledge*, (3) *preliminary observation*, (4) *theory construction*, (5) *verification*, and (6) *application* of the verified theory.²⁹ This sequential pattern is readily applicable to research investigations generally, and as such the *review of knowledge* likewise is one important phase that is involved. Few scholars, for example, would wish to pursue research studies without first knowing about the work which others have reported concerning these studies.

The writer of a thesis is responsible for knowing the present level of knowledge in regard to his subject. Such a background is valuable because "research is always a pushing forward of exploration from the known to the unknown regions."³⁰

It is nevertheless true that students often tell thesis advisers that

their proposed studies are “entirely new—nothing has been done on the subjects.” A first tentative reaction to such pronouncements should be one of skepticism, although it is perhaps wise first of all for the adviser to participate in the joyful discovery concerning the new problem. After further thought and study one or more of these conditions are likely to prove to be true: (1) the subject in some of its aspects has been investigated by scholars in speech or in related areas; (2) the subject has in some respects been studied by investigators who may have had a primary interest in a related subject; (3) while not directly treated in a thesis, the subject has been considered in articles, monographs, and books; and (4) while the subject is “new” in the sense that a dissertation has not been written on it, theses closely related to the proposed subject have been written. “Closely related” in this case may concern the subject itself or procedures and techniques which the thesis writer should know.

Some of the preparatory knowledge required is of course studied in graduate classes, but almost invariably the student must do further library study. What is more, no other more fruitful paths are open to the scholar. He clearly must master what is presently known about his subject. In fact, he must be cognizant of what is published month by month even while he is engaged in his own investigation.

The speech student, as does any scholar, must be prepared to face a world list of some 50,000 scientific periodicals (a list expected to reach 100,000 by 1979),³¹ as well as thousands of other publications. With this great advance in the communication of knowledge, the writer of a thesis may be pleased to have some pointers to guide him. These are now advanced with the full realization that rules *per se* can help the student primarily in regard to procedural matters. The actual task in each case remains with the individual investigator, and adaptations to specific conditions will need to be made.

Read in Related Fields as Well as from Speech Journals. While universities organize instruction in terms of schools, colleges, and departments, areas of knowledge are really not departmentalized. In fact, it is widely held that interdisciplinary studies are virtually essential in order to advance knowledge most effectively. What is important concerns the contribution the scholar can make and not the department which he represents. Arbitrary distinctions which establish lines of authority for research are now either being removed or they no longer exist in American universities.

In a lecture delivered at The University of Michigan in May 1959, Dr. James G. Miller, Director of the Mental Health Research Institute, described the nature of a library survey which was conducted. The immediate concern of the research institute was the problem of “information overload and mechanisms of defense.” After formulating research objectives, the investigators surveyed materials on this rather complex subject and prepared 3,000 reference cards. “These were later cut down to 1,000 cards,” said Dr. Miller, “and we then read the 1,000 articles.” To say that

survey of knowledge was highly valued by this research group is very much an understatement. One can safely assume, as well, that the references studied represented not a few subject matter fields, but a dozen or more.

The writer of a thesis is not expected to equal the work of a research institute, but the idea here illustrated is worth remembering. As a case in point, however, the study by Matthews³² is one in which a variety of types of subject matter areas were studied in preparation for an experiment on the effect of loaded language upon the comprehension of speeches. Matthews identifies at least six textbooks on semantics which he utilized as background sources, several psychology texts, two dissertations closely related to his subject, as well as references to Gilkinson's³³ outlines of research, and the usual indexes and bibliographies in speech publications. Black and Ausherman³⁴ found it necessary to review all available vocabulary studies which concerned frequency of word choice by normal speakers. These included reports from investigators in the fields of education, English, information theory, and linguistics, as well as speech. In varying degrees the thesis writer should emulate these practices, although some subjects used in theses may not have such a rich background of previous knowledge.

Read with a Critical, Reflective Attitude. The reader has the responsibility for making a strong effort to understand what previous investigators have reported: (1) He should distinguish facts and inferences as he reads, (2) read with an open mind and judge only after careful analysis of the materials, and (3) mentally contemplate new patterns or arrangements suggested by what he reads.

Occasionally the statement is made that "reading what others have written on the subject conditions the mind" blindly to accept the same approach to the problem. Charles F. Kettering, for example, was fond of referring to routinized thinking which he claimed was the result of reading conventional sources. In our daily experiences as well, we commonly speak of a "fresh approach," "new outlook," "absence of conditioning." Fixed ways of thinking and rigidity are hardly necessary byproducts of a review of knowledge any more than is creativity the product of ignorance. Most investigators are quite clear in demanding that researchers know as much about a research problem as possible. At the same time, however, it is proper to warn the student against the dangers of uncritical acceptance of authority.

Look for Gaps in Present Knowledge. After studying an article related to a thesis problem, the student should ask himself, "What is it that we are not told?" or "What is confusing about the subject?" In other words, one should not passively absorb data to the exclusion of questioning. Dewey³⁵ perceived from his reading that information was needed concerning improved frontal lighting from beams, apertures or coves in the theatre. Russell³⁶ concluded that the influence of the masque on costuming

in the public theatre constituted a problem enmeshed in a broader controversy. Similarly, Sattler³⁷ found from his review of knowledge on the case method that few indications were given concerning the use of the method in discussion classes. In these ways, therefore, the review of knowledge was useful in the discovery of both what was known and what was not known.

Cannon³⁸ has used the word "serendipity" in the sense of making discoveries that are not specifically sought, coming upon new objects, or upon new ideas. The word was coined by Horace Walpole in 1754 after reading a fairy story titled *The Three Princes of Serendip*. "As their highnesses traveled," wrote Walpole, "they were always making discoveries, by accident or sagacity, of things they were not in quest of." Such happy discoveries may follow from reading and at times are associated with "hunches." In any event, the scholar can place serendipity to work for him as he reads and thinks. Occasionally he may wish to apply serendipity directly by forcing himself to answer questions concerning the presence or absence of important ideas or procedures.

Give Special Attention to Procedures or Techniques Used in Studies.

Perhaps as much as one-half of the library survey which constitutes the review of knowledge will be directed toward the methods, procedures, and techniques which other investigators have used. Whether the student is studying a speaker, speaking and a social movement, history of a particular theatre, dramatic criticism, or viewers' reactions to certain television programs, it is important for him to know how previous writers conducted similar studies. Thus, apart from the substantive aspects of previous studies, the student should be interested in procedures as well. The student must ask himself whether new procedures should be used, or whether he may more profitably use some techniques that have already been developed. Irrespective of the answer to this question, it is reasonable to expect the student to know what procedures previous writers employed.

Haiman³⁹ in his study of the effects of *ethos* found it necessary to investigate theses which were not concerned with his own subject. General studies concerning shifts of attitude, logical and emotional proofs, and humor were cited, together with an identification of various measuring instruments. It was obviously important for Haiman to review knowledge in terms of possible techniques used previously in studies of audience reactions. In the library survey of knowledge by Dudley⁴⁰ several studies not concerned with the persuasive methods of the United World Federalists were investigated. These included Crandell's⁴¹ thesis dealing with the WTCU as a pressure group, and Lafforge's⁴² study of the persuasive techniques used by the American Medical Association. Again, the importance of knowing procedures or techniques is illustrated.

When the student reviews knowledge, therefore, he is not simply interested in the conclusions, but in ways in which studies are carried out. As a matter of fact, one of the most striking features of some studies re-

ported in *The Journal of Speech and Hearing Disorders* concerns the research techniques other scholars have utilized. Refinements in instrumentation are of utmost importance in audiology, speech correction, and speech science. Under some conditions this is also true in other divisions of the field of speech.

Give Credit to Previous Investigators. The writer of a thesis must not only report the present status of knowledge concerning his subject, but in so doing he should also give credit to the persons who have made contributions. This point is well stated by Beveridge:⁴³

There are certain ethical considerations which are generally recognized among scientists. One of the most important is that, in reporting an investigation, the author is under an obligation to give due credit to previous work which he has drawn upon and to anyone who has assisted materially in the investigation. This elementary unwritten rule is not always followed as scrupulously as it should be and offenders ought to realize that increased credit in the eyes of the less informed readers is more than offset by the opprobrium accorded them by the few who know and whose opinion really matters. A common minor infringement that one hears is someone quoting another's ideas in conversation as though they were his own.

The writer should explain previous contributions in objective language. Normally, there is no reason for special praise of previous research and writers, because the interest of the researcher lies in the accomplishments reported *per se*. With regard to criticism, thesis writers sometimes feel that they must condemn other studies in order to justify their own. This too is usually unnecessary unless indeed a piece of research has serious weaknesses. Criticism, however, does not seem to be justified under these conditions: when the studies surveyed have different objectives from your study, when the studies are either more limited or broader than your own, and when studies were done under different conditions and with different methods of measurement. Briefly stated, the fact that other studies are different from your study is not a necessary weakness to be exploited. This point should of course be mentioned, but evaluation seems to be unwise in part because researchers should be free to be different in method and procedure.

Present the Review of Knowledge Effectively. Most theses, at least at the doctoral level, include either a section or a chapter dealing with "previous studies," "related studies," or "review of literature." To present such library survey reporting effectively is one of the researcher's key tasks.

Common weaknesses of this portion of the thesis include: (1) poorly organized historical narrative, (2) excessive brevity in reporting, and (3) long, tedious, and irrelevant information.

Frequently the writer will organize his material in a chronological fashion. If the studies described each deal with a specific problem and the problem is attacked in essentially the same fashion, this time-sequence

pattern may be acceptable. More frequently, however, the researcher will find that studies can be classified according to appropriate categories. When this is true, and it often is, the thesis writer can present a more meaningful review. Readers will grasp the significance of the historical narrative better if the writer has a respect for form or pattern in organization.

The sketchy and excessively detailed review of knowledge each suggest different remedies. Frequently the highly condensed report is appropriate for journal articles, but a somewhat longer review is expected in theses. The researcher might ask himself these questions: Have I included all relevant references? Have I said enough about each reference to show clearly the intent of the original investigator? Will readers find the review to be helpful? Have I shown the connection between my own study and the literature surveyed? As for the long and tedious survey the writer can achieve improvements by asking, "Is this particular matter worth saying?" In many cases a relatively short statement identifying a study is sufficient. By doing this the writer will have an adequate number of pages to describe the important studies more completely. Finally it is incumbent on the thesis writer to draw some conclusions in regard to his survey of knowledge. These are likely to constitute a summary of findings, agreements and disagreements, and ways in which the study differs or agrees with the purposes of earlier studies.

Briefly stated, the review of knowledge in a thesis should be complete, clear, and interesting. Anything less constitutes a deficiency.

SUMMARY

The library survey seeks to ascertain the existing status of knowledge concerning principles, methods, institutions, or persons in terms of stated research objectives. Broadly speaking, the objectives may concern library survey as an independent study or as one stage in research commonly called "review of knowledge."

Four general types of library survey studies have been identified: existing status and interpretation, existing status and history, existing status and recommendations, and existing status and criticism. Particular stress was placed upon the importance of a significant theoretical basis for survey studies, the identification of objectives or hypotheses, and the use of categories. In this connection, attention was given to the relative values of verbal and quantitative forms of reporting data in library-type investigations. Finally, the values and limitations of the library survey thesis were explained. Among the suggestions named for improving the library survey study were: theory construction as an outcome of studies and the use of new tools in research, including content analysis.

Recommendations concerning library survey in terms of "review of knowledge" included: Read from related fields as well as in speech journals, read with a critical and reflective attitude, look for gaps in present

knowledge, give special attention to procedures and techniques used in other studies, and strike a balance between excessive brevity and tedious irrelevancy in writing the review literature section or chapter of the thesis.

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CHAPTER 4

The Historical Approach

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INTRODUCTION

Every graduate student in speech should know something about historical methods. Since every problem has roots in the past, even studies not primarily historical must consider the background. Whether history is central to or incidental in a study, the scholarly writer needs to know how the past may best be studied. This chapter is, therefore, intended to give students in speech an introduction to historical methods as applied to our own field.

No single chapter could replace a good book on historical methods. For those who use these techniques only incidentally, this introduction may be enough. Those who plan a historical study in any field of speech should consult longer and fuller summaries of historical methodology.¹

This survey is written from the point of view of the rhetorician, since that is the professional training of the writer. The methods described here are, however, applicable to all fields of research in speech and have been used in all.

DEFINITIONS

History is universal in its interests, yet owns no subject matter exclusively its own. It deals with the rise and fall of nations, the conduct of political campaigns, wars and battles, production and distribution, prosperity and depression, art and literature, music and theatre of all peoples at all times, education, philosophy, oratory. The interests of the historian are catholic, though the professional historian does not claim equal competence in each of the many fields. His methods, however, are applicable to all.

The word "history" is used in different ways. For instance, Charles Austin Beard said that "History . . . includes . . . all that has been done, said, felt, and thought by human beings on this planet since humanity began its long career."²

Another view of history pictures it as "basically a method of investiga-

tion, and secondarily a method of describing and interpreting the results of investigation." The Greek word from which we derive "history" meant an inquiry, *any inquiry*, designed to elicit truth. Homer applied the term to an examination of evidence in a legal dispute. The opening words of the Father of History are often translated "These are the histories. . . ." A better translation would probably be, "This is the exposition of the results of the investigations of Herodotus of Halicarnassus."³

"History," says the *Harvard Guide*,⁴ "is a method, a particular way of studying the record of human experience. It is also a body of information." History includes both the method and the result, the procedure followed and the end product.

Historical methods are best defined operationally as the process described in this chapter or in such books as the *Harvard Guide*. Briefly, however, historical methods require the student to seek out and critically evaluate the reports of observers of past events in order to describe accurately what happened and to clarify as best he can the relationships among those events.

RESEARCH REQUIRING USE OF HISTORICAL METHODS

Any speech problem that requires knowledge of the past, of what *has been* rather than what *is* or *should be*, compels the use of historical methods. These methods do not stop with a description of what has been but continue to suggest interpretation of the past to show *why* things developed as they did and *how* they compared with similar developments. And, using the facts and relationships revealed through historical research, students of speech make judgments of effective or ineffective, good or bad, right or wrong.

Historical methods are often the primary, even the exclusive, techniques employed, as in biographical studies of orators, actors, directors, or in histories of theatres, therapies, or radio stations. Descriptive and critical studies often depend on the results of prior historical investigation.

Historical methods have been and are being used in all fields of speech. At least in American graduate schools, however, the largest group of historical studies is in rhetoric and public address. Not so many historical studies have been completed in theatre and speech education. There are only scattered historical studies in radio-television and in speech-correction-audiology.

What are some of the problems in speech requiring use of historical methods? The following classification of seven kinds of studies is intended to be suggestive rather than comprehensive.

1. *Biographical or biographical-critical studies of orators, actors, directors.* Many such studies have been completed, some of them published in book form. See the carefully prepared and documented studies in the three volumes of *A History and Criticism of American Public Address*.⁵ Other

examples in this area include Robert D. Clark, *The Life of Matthew Simpson* (New York, 1956); and Dallas C. Dickey, *Seargent S. Prentiss: Whig Orator of the Old South* (Baton Rouge, 1946). In theatre there are John Harold Wilson's popularized *Nell Gwynn; Royal Mistress* (New York, 1952); and Garff B. Wilson's "Forgotten Queen of the American Stage: Mary Ann Duff."⁶

2. *Movement or "idea" studies.* An important development in recent years has been the interest of professional historians and other scholars in the history of ideas and of great political-social-economic movements. In public address, for instance, we have studied the great debates of the constitutional convention, the compromises and clashes that preceded the Civil War, the Progressive movement, and the struggles between isolationism and internationalism after World Wars I and II.

A theatre study in this category is George Kernodle's *From Art to Theatre: Form and Convention in the Renaissance* (Chicago, 1944). In rhetoric Wilbur Samuel Howell surveyed *Logic and Rhetoric in England, 1500-1700* (Princeton, 1956); and Warren Guthrie summarized "The Development of Rhetorical Theory in America."⁷ See also many of the essays in *History of Speech Education in America*, edited by Karl R. Wallace (New York, 1954). In another field Lucille D. Schoolfield wrote "The Development of Speech Correction in the Nineteenth Century," both a "movement" and a "regional" study.⁸

3. *Regional studies.* Here the unit of study is geographical, having to do with a city, a state, or a nation. One good example is William G. B. Carson's *The Theatre on the Frontier: The Early Years of the St. Louis Stage* (Chicago, 1932). Another is Earl Ernst's study of the Japanese theatre: "Notes on the Form of Kabuki, I, II."⁹ In public address L. Gray Burdin surveyed "Public Speaking in New York City in 1850"¹⁰ and William E. Seelen studied "Public Speaking in Missouri, 1820-1830."¹¹ An example in speech therapy is Keith Ivan Newcomb's "The History of Speech Reeducation in South Dakota."¹²

4. *Institutional studies.* Here the focus is on an institution: a school or department of speech, a famous theatre, a forum or debating society, a radio station, a clinic or speech hospital. Several studies of speech departments¹³ and of forensic¹⁴ or theatre programs have been completed. Winnie M. Cooper wrote "A History of the College of the Pacific Speech and Hearing Clinic."¹⁵

Many histories of radio stations have been completed as master's theses, particularly at the University of Missouri School of Journalism.¹⁶ And James E. Lynch earned his M.A. at the University of Michigan in 1949 with a study of "WWJ-TV—a History." In theatre there are such examples as J. C. Adams' study of *The Globe Playhouse* (Cambridge, 1942) and Roderick Robertson's "University Theatre at Oxford."¹⁷

5. *Case histories.* These concentrate on a single event in its social setting. In his book on Orson Welles' famous broadcast, *The Invasion*

From Mars: A Study in the Psychology of Panic,¹⁸ Hadley Cantril employed historical criticism as well as sociological investigation. In public address there are many studies of individual speeches and groups of speeches such as those of a political campaign. Gale L. Richards wrote "A Case Study in Deliberative Persuasion: John Marshall's Congressional Speech on Jonathan Roberts."¹⁹ See also Clair Henderlinder's review of "Woodrow Wilson's Speeches on the League of Nations, September 4-25, 1919,"²⁰ and Waldo Braden's critique of "William E. Borah's Senate Speeches on the League of Nations, 1918-1920."²¹ In speech therapy there are histories of individual cases; in theatre, histories of specific plays and productions.

6. *Selective studies.* These lift from a complex process a special element for close attention. One carefully documented study of this kind in theatre is by John E. Long, *Shakespeare's Use of Music: A Study of the Music and Its Performance in the Original Production of Seven Comedies* (Gainesville, Florida, 1955). Or see Lee Mitchell's study of "Shakespeare's Sound Effects."²² In speech correction Gray Burdin reviewed "The Surgical Treatment of Stammering, 1840-52"²³ and J. H. Platt reviewed "The History and Principles of Obturator Design."²⁴ There are many studies of this kind in public address, among them being Carroll Arnold's "Invention in the Parliamentary Speaking of Benjamin Disraeli, 1842-1852,"²⁵ and William A. Behl's "Theodore Roosevelt's Principles of Invention."²⁶

7. *Editorial studies.* Here the scholar prepares a newly discovered source—or a new translation of an old source—for publication. He may examine the sources used by an important rhetorician in a particular field. In theatre, for instance, George Kernodle prepared "Recent Scholarship on the Greek Theatre."²⁷ In homiletics Harry Caplan and Henry H. King published "Dutch Treatises on Preaching; a List of Books and Articles."²⁸ In public address see Wilbur Samuel Howell's *The Rhetoric of Alcuin and Charlemagne* (Princeton, 1941) and Ray Nadeau's "Rhetorica Ad Herennium: Commentary and Translation of Book I."²⁹

PERSONAL CHARACTERISTICS REQUIRED

Before undertaking any study of any kind, the student should have reason to believe that he is willing and able to undergo the difficulties it involves. How, then, can you as a beginning graduate student decide whether or not you wish to undertake a research project requiring use of historical methods?

1. Do you enjoy reading history, not just historical novels, but serious historical books? Try reading Carl Sandburg's biography of Lincoln, Walter Millis's *Road to War*, or Merle Curtis's *Growth of American Thought*. If these books bore you, try another type of research.

Or, if you like, try this little experiment. Go to the *New York Times*

microfilm for the date of your birth. Read the headlines and the leading stories. If this leaves you cold, historical research is not for you. If you would like to read further, then you probably would like historical research.

2. Do you enjoy working in the library, not just in the periodicals or newspaper room, but in government documents, back files of periodicals, or with the Recordax in the microfilm room? Do you enjoy searching for a hard-to-find source and thrill in the discovery of an unexpected bit of information?

In historical research your way will be smoothed if you get along well with assorted librarians, but, except for an occasional interview, you will not work much with people. Yours is the world of books and related sources.

3. Are you systematic, accurate in collecting biographical information, ingenious in devising and following a classification scheme for your notes? Unorganized work will make your task frustrating and virtually endless.

4. Are you prepared, where necessary, to go to your sources? Despite microfilm and inter-library loan, manuscript and other sources are often available only in one place. Especially on the Ph.D. level a student's committee expects him to exhaust all sources, even if this means a thousand or more miles of travel.

5. Do you like to write? Most historical studies require more writing than do experimental studies. Are you ready to sit at your desk hour after hour, day after day, carefully and painstakingly writing and revising your manuscript?

HISTORICAL METHODS AT WORK

I. DISCOVERING SOURCES. All graduate students in speech—including those using historical methods of research—face common problems of research and writing discussed in Chapters 3 and 15. They must state precisely and impartially the questions for which they seek answers.

Placing the Study in Perspective. Too many historical studies are approached and even completed in a cultural vacuum. No speaker or actor can be understood apart from the milieu in which he moved. To place any historical study in perspective, consult one or more works of general history covering the period of the investigation. For the best available sources, talk to someone in the History Department, preferably the professor responsible for courses in the period.

Securing Materials. A persevering graduate student, with the aid of the reference librarian, soon learns the intricacies of inter-library loan. In the case of rare books, he discovers where they are deposited, writes for permission to use them, and plans a trip to their location. No candidate should be satisfied until he (or a trusted friend) has looked at every possible source of information on the subject.

For many historical studies the daily newspaper is an essential source. All research libraries have the monumental work indexing available news-

paper files, *American Newspapers, 1821-1936; A Union List of Files Available in the United States and Canada*.³⁰ Some files in nearby libraries can be consulted without excessive expense. When exact references to articles, reviews, speeches, or news stories are available, photostatic copies can often be obtained at a nominal charge by writing the librarian.

Extensive individual collections offer real possibilities in certain fields. Sometimes these may not be readily opened to the graduate student and he will need to search for duplicates elsewhere. At other times the answer may be favorable and a long and often fruitless search avoided. For instance, in his study of George Bernard Shaw, Carl Zerbe was granted permission to use the extensive private collection of Dr. Archibald Henderson at the University of North Carolina.

Uncovering Hidden Materials. The historian enjoys discovering hidden materials. It would be impossible to list all the kinds of unusual materials scholars use, but they are many and diverse. For instance, one would scarcely expect to find a student of the theatre rummaging through old tax records, but that is exactly what William Russell West (M.S., Florida State University, 1954) did in studying the ownership of the professional theatre in Tallahassee, Florida, 1874-1893.

Original manuscripts and manuscript collections offer a challenge to the serious historical investigator. The largest single collection of original manuscripts is in the Library of Congress. Three documents serve as a guide to this collection: *Handbook of Manuscripts in the Library of Congress* published by the Government Printing Office in 1918; "List of Manuscript Collections in the Library of Congress to July, 1931," Volume I of the *Annual Report of the American Historical Association, 1930*;³¹ "List of Manuscripts Collections Received in the Library of Congress, July 1931 to July 1938," published in the same association's *Annual Report for 1937*.³² Manuscript collections at Yale, Harvard, and large public and state historical libraries must not be neglected. For assistance, see R. L. Vormelker's four-volume work, *Special Library Resources*, published in New York from 1941-47. Other helps are listed on page 80 of the *Harvard Guide*.

Original documents, especially of materials not originally intended for the eyes of later scholars, are sometimes the most reliable source. Not all such hidden materials are in libraries; diaries and letters and occasional manuscripts turn up in attics, basements, or bureau drawers in private homes. For instance, John Hoshor of the University of Hawaii began a study of the rhetorical theory of Chauncey Allen Goodrich, the famous Yale professor and author-editor of *Select British Eloquence*. He went to Yale and looked at the Goodrich papers, then borrowed the papers for closer scrutiny. His account follows:

They sent what they had—a small pamphlet on elocution, six or seven pages of notes on random subjects (rhetoric and homiletics), and three original letters in his own handwriting. In one of the letters I came across the comment that he

had just spent several weeks writing up his lecture notes and thought he might see about having them published. Since no such lectures existed, I concluded they had either been destroyed at his death, or *might* be in somebody's attic. I obtained a genealogy of the family (mostly from a ninety-four year old minister, Reverend Goodrich in Brunswick, Maine) and wrote a form letter of inquiry to all living descendants whose addresses I could get—about ninety in all. I got about thirty replies, including the one from a woman in Pasadena who actually *did* have them in her attic. She sent them to me. I “translated” them (i.e., the handwriting was all but illegible and they were all mixed up) and sent them on to Yale.

Authenticity was established by handwriting comparison and by internal references to himself and his position at Yale.³³

Rhetoric is not the only field in which such materials have proved useful. In his study of Dion Boucicault, Lynn E. Orr discovered in the New York Public Library prompt books used by Boucicault with his own marginal notes. Orr examined the extensive Theatre Collection at New York Public Library: original theatre programs, handbills, portfolios of clippings, original prompt books, and a well cross-indexed theatre bibliography.³⁴

Use of books and manuscript collections may require skill in languages other than English. A quick examination of the bibliography used by George Kernodle for his book, *From Art to Theatre*,³⁵ shows extensive use of works published in German, Spanish, Italian, French, Dutch, and other languages.

Personal interviews constitute another challenging source of information about the past. In some cases correspondence may have to take the place of personal interview.

Movies and recordings offer additional possibilities. In his research on the transition from *Stage to Screen*,³⁶ Alexander Nicholas Vardac arranged with the curator of the Film Library of the Museum of Modern Art for special showings of early American and foreign films. Old movie newsreels, sometimes available through regular dealers in secondhand films, may prove valuable for students of American public address.

Recordings, both tape and platter, make it possible for students to hear again the voices of actors and speakers of an earlier day. Some are available through the major radio networks; others may be collected casually (and preserved or filed just as casually) by a local radio station. Recordings are particularly useful for careful study of contemporary speakers, though the voices of many of our presidents are still available from *Lingua-phone*³⁷ or from one of the major networks or recording companies.

Many studies suggest or even require a personal visit to the location. Perhaps the need is to inspect and measure the dimensions of a theatre under study. Or the student must study the capacity or the acoustics of an auditorium in which someone spoke, or estimate the size of a city square or other open-air meeting place. For instance, Ray Sandefur in his study of John James Ingalls³⁸ visited both speech scene and theatre:

The author, upon visiting on August 14, 1948, the scene of the speech, observed that the area presumably occupied by the audience extended along three city streets, about one block east of the Otis House to the Missouri River and two blocks west. A steep hill faces the Otis House (now the Byrum Hotel), along which people could have stood and had a clear view of the speaker. Ingalls, standing on the balcony of the building, should have been easily seen and heard by everyone in the crowd.

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The author, upon visiting the former Grand Opera House, now a motion picture theatre named the Grand Theatre, observed that approximately 2,000 persons could have been accommodated there. The manager of the Grand Theatre testified that the size of the theatre had not been changed. A comparison with an old photograph of the Grand Opera House showed the building to be essentially the same, with only minor alterations to the exterior. The interior had, of course, been re-decorated.³⁹

Where visits are impossible, photos or drawings may serve as the best available substitute. For instance, line drawings in *Harper's Weekly* helped in the writer's study of Andrew Johnson's 1866 "Swing Around the Circle," and Robert Gunderson of Indiana University recently discovered a photograph of President Johnson's reception at Elyria, Ohio, during his tour. No possibility should be overlooked.

Classifying Sources. Historical records, says the *Harvard Guide* (page 80), "include everything that has survived from the past: manuscript and printed material, monuments, inscriptions, buildings, artifacts, sculpture, and the graphic arts." Some were systematic attempts to transmit information to contemporary readers and even to later scholars; others had no such intent. All are grist for the historian's mill.

The most familiar division separates primary sources from secondary materials. Primary sources (sometimes called source materials, or just sources) are always firsthand. The reporter may be expert or ordinary; his product may be casual (a friendly letter) or planned (a newspaper account). But "sources" are prized by the historical scholar.

Secondary materials are derived from the reports of others. They are not the reports of eyewitnesses or the original documents, but are based on such reports. No distinction is ordinarily made between secondary materials (technically only those accounts based directly on primary sources) and tertiary materials (accounts based on accounts based on primary sources) or those still farther removed from the originals.

Much of what we read is inevitably secondhand. Even where, for instance, a newspaper story is written as though the reporter were telling only what he himself observed, the reporter often saw only a part of what he reports. Letters and diaries contain the same mixture of eyewitness accounts and that which the writers accept on the basis of credible (to them) witnesses.⁴⁰ The greater reliance one places on carefully evaluated primary sources, the more accurate will be his conclusions.

II. TESTING THE AUTHENTICITY OF SOURCES: EXTERNAL (LOWER) CRITICISM. *The Need for Historical Doubt.* Doubt is the first duty of the historian. He must question, question, question—until an accumulation of evidence forces a conclusion upon him. Every possible reason for disbelief must be explored before the scholar is willing to accept a statement as true.

Herodotus, the Father of History, was not strong in critical examination of his materials; in his writings he included many stories, anecdotes, side issues, and digressions. His conception of his task was all-inclusive: "For myself, my duty is to report all that is said, but I am not obliged to believe it all alike—a remark which may be understood to apply to my whole history." Thucydides, on the other hand, made a careful effort to seek out and report only the truth—though he, like later historians, did not always succeed. In his history of the war, Thucydides said: "I have followed neither the first report nor my own opinion, but rather I have given those writings which I have either seen myself or have learned of others with the greatest diligence. To find the truth caused me much trouble, for the witnesses of the various events were not agreed in their accounts, but both sides were affected by partisanship and failure of memory."⁴¹

Even though the historian strives to be "scientific" in objective study, the evidence with which he works is vastly different from that of the laboratory. An event of the past is not subject to replication; in the sources he consults the historian finds not the action itself, but somebody's description of it. As the *Harvard Guide* (page 25) puts it:

A judge and jury, indeed, would go mad if they had to decide cases on evidence which will often seem more than satisfactory to the historian. But there is no escape; the historian, if he is to interpret at all, will try and convict on evidence which a court would throw out as circumstantial or hearsay. The victims of the historical process have to seek their compensation in the fact that history provides them with a far more flexible appellate procedure. The historian's sentences are in a continuous condition of review; few of his verdicts are ever final.

Ultimately the historical scholar finds himself unable to question the accuracy of a report, despite the most careful search of the circumstances and motives of its production, and the study of other contemporary accounts. He then concludes that in all probability, given the evidence available to him at that time, he has an accurate picture of what happened.

The Meaning of External Criticism. External criticism is the careful and systematic examination of each *source* of evidence used in any inquiry. It "seeks to ascertain when, where, and by whom a source was produced and to determine precisely its original form."⁴² It begins with the compilation of the bibliography and ends only when the author places the paper in the hands of typist or publisher. And, if the scholar is true to his task, the

critical examination begins again as soon as the document is completed and is, in effect, continual and eternal.

Much of the information acquired during the process of external criticism (the examination of sources) lays the groundwork for the processes of internal criticism (the determination of the truthfulness of statements). Internal criticism cannot really get under way, however, until the processes of external criticism are well along toward completion. Establishing the credibility of the witness precedes the critical examination of the testimony itself.

One possible source of confusion is the dual use of “external” and “internal” as adjectives modifying both “criticism” and “evidence.” External criticism uses both *external evidence* (derived from sources outside the manuscript being studied) and *internal evidence* (study of the text itself—language used, spelling of words, knowledge of current or past events shown in the text, reference to contemporary persons, places or events). In this case both kinds of evidence are used in *external criticism* to establish the authenticity of the document—its authorship, date, and circumstances of production. Both kinds of evidence are similarly used in *internal criticism* to establish the truthfulness of *statements* in the text.

The Questions of External Criticism. A scholar asks many questions about the sources he uses. Here are some of the most important, suggesting others that might be asked in particular cases:

1. Is the chronicle, charter, document, news story, or report really what it claims or is purported to be? Is it genuine? The professional historian must constantly be on the lookout for outright forgeries. The scholar in speech is not likely to run across such gross forgeries as the famous Donation of Constantine or the Pseudo-Isidorean Decretals. Detection of anachronisms or misstatements in the texts of these and similar forgeries is clearly the work of the specialist.

On the other hand, not all plays—even though labeled as such—are intended to be acted on the stage. In like manner, we have become familiar with thoroughly political “non-political” addresses in recent years, often delivered by elected or appointed officials in high places. Likewise, although a news report purports to be a firsthand account of what the reporter observed with his own eyes, careful examination may show it to be a rehash of other reports.

Among the most important questions of external criticism, therefore, are these: Is the report genuine? Is its “label” (or self-description) accurate?

2. Who was its author? If the historian is to rely upon evidence supplied by a particular report, he certainly must know who created it. And this includes not only the name but also the qualifications—in fact, anything that can be learned about the author of the report. When was he born? How old was he at the time of the event? What education had he enjoyed? Where did he live?

When and where and how was the author trained for his job? What

reason did he have for competence in observation? What was his education; what were his professional and other affiliations and experiences? Did they qualify him for doing a competent job of observing that which he reported? Was he intelligent?

Even the most competent observer cannot bring a truly firsthand account unless he was in a position to observe. What was the position of the observer with respect to the event(s) reported? Over how long a period did he observe the person or the event? The report of a listener who heard a preacher for a year would be preferred to that of a listener who dropped in for a single sermon.

A man may, however, be a competent observer in a position to observe but lack the skill necessary to transmit the results of his observations to another. What facility as a writer (or photographer, artist) did the observer have? Could he transmit accurately and with reasonable completeness the results of his observations?

If more than one reporter was responsible for a particular report, who were the other reporters and what can be learned about them? For which part(s) of the report were they—individually or collectively—responsible?

3. Where and how did the author derive his information? Was this an eye-witness report? If so, how much of the report could he have seen with his own eyes, and how much is dependent (even though he may have been on the scene) on the testimony of others? If the author acquired some or all of his information by interviewing participants in or eyewitnesses of the event, when did he interview them—immediately, or after some delay, and if delay, how much?

4. When was the document produced?⁴³ Did the observer write down his observations during the event or after the event—and if after the event, how long after? Did he make notes at the time, and if so, how faithfully does his narrative follow those notes? If he waited until after the event to write down anything, what intervened during the waiting period?

The same question is important to the theatre historian who attempts to date a play or production. “No commentary on a play of Shakespeare’s,” writes Horace Howard Furness in his introduction to “*Midsommer Nights Dreame*,” “is now-a-days complete without a discussion of the *date of its composition*.”⁴⁴

5. What is the original form of the document? Frequently a document has been printed and reprinted, sometimes with omissions, editorial changes, corrections by the author, editor, or others.⁴⁵ In all such cases the task of the critic is to discover the original form of the document and the justification, if any, for changes that have been made. The presumption is in favor of the original document until evidence justifying a change is discovered.

Finding two or more forms of the same document is not at all unusual. When Andrew Johnson was impeached by the House of Representatives and tried by the Senate, three versions of his Cleveland speech were intro-

duced as evidence at the impeachment trial.⁴⁶ One of these was, moreover, itself “a revised republication” printed by the *Cleveland Leader* on September 12, nine days after the speech.

In our own day, most speech scholars are aware that wire services often secure advance texts of speeches by important public officials or politicians. These are distributed to member newspapers with “hold” instructions well before the speech is delivered. Scholars also know that speakers often depart from these prepared texts and that the speech as printed in the morning or afternoon newspaper differs from the speech as actually delivered.⁴⁷ Since some papers make a practice of reporting the speeches *as delivered* (by correcting the advance text, or preparing their own shorthand report), the scholar is confronted with two different texts for the same speech. Somehow he must determine which corresponds to the speech *as delivered* and how carefully variations from the advance text were corrected by the reporter. Variant readings of the same play are equally common, posing to the theatre historian problems similar to those the rhetorical critic faces in choosing among variant speech texts.

Sometimes, however, two ostensibly separate reports of the same event are not genuinely independent. One must ask whether they represent different accounts of the same event by eyewitnesses. Or are they both dependent, in greater or lesser degree, on the same source? Does one depend, in whole or in part, on the other? If so, which was the independent version?

Applying External Criticism to Determine Textual Authenticity. One of the most persistent and sometimes one of the most difficult problems faced by the rhetorical critic is that of textual authenticity. How accurately does the available text represent what the speaker actually said in the immediate speaker-audience-occasion-subject interaction?

When one man tries to report another’s speech, there is many a chance for slip between the speaker’s lips and the printed text. The reporter may not be able to hear the speaker, whether because of distance, crowd noise, poor hearing on the reporter’s part, or other causes. Even if the reporter hears the speaker, he may not have adequate facilities (table, chair, light in the case of a night address) for recording it. Even if the speaker be heard perfectly, it takes a good shorthand reporter to keep up with him through a moderately long address. Even if the shorthand reporter does his work accurately and well, the editor may cut certain portions of the speech but neglect to indicate that the speech has been abridged. The linotype operator may be unable to read the copy, especially if it has been hastily prepared, or may skip a few lines. The inflexible space limitations of the newspaper column may cause the make-up man or page editor to throw away a paragraph or two of type, even if the speech has survived all previous hazards. Inaccuracies in either hand or linotype composition are, of course, omnipresent.

Where a text is abridged, or where certain portions are synopses rather than verbatim reports, the bias of the reporter or the prejudice of the edi-

tor inevitably (though perhaps subconsciously) dictates what portions are included and what excluded, or the content and tone of synopses.

Essentially the same problem faces scholars in the theatre when they seek to establish the original (or the best) text of a play. For example, scholars are still uncertain about how Shakespeare's plays were first prepared for printing, and their transmission to us appears anything but dependable. Commenting on the minute detail with which past critics examined every comma and the crossing of each "t", Furness wrote: "Were there any evidence that Shakespeare had ever corrected the proof-sheets of this play, or that it was even printed from his manuscript, every comma should be held sacred, but when we know that we have to get at Shakespeare oftentimes through the interpretation of an ignorant compositor, and that copies of the very same date differ, such minute collation verges on trifling and caricature."⁴⁸ Even with such an attitude toward unimportant and trivial detail, Furness includes enough variant readings and interpretations of the meaning to make a thick book out of each of Shakespeare's plays.

III. EVALUATING THE ACCURACY OF STATEMENTS: INTERNAL (HIGHER) CRITICISM. *The Starting Point of Internal Criticism.* Internal criticism begins where external criticism ends. There is no use attempting to evaluate the accuracy of statements in any document⁴⁹ until the student is convinced of the genuineness. If it is a forgery, it must be discarded; if it is merely a secondary report based on other eyewitness accounts, then the scholar seeks for the original sources. Internal criticism does not begin, moreover, until the scholar has done everything possible to be sure that his documents are originals, or as close to originals as possible. Finally, internal criticism waits upon the discoveries of external criticism concerning the author and the circumstances attending production of the document.

What Does the Statement Mean? The first question to be asked in internal criticism is this, "What does the statement mean?" There is no point in asking whether or not a statement is to be believed until the critic understands what it means.

The critic must, of course, be careful to study the passage in the context of the entire document. An excerpt studied in isolation may appear to mean something quite different from the same quotation studied in context. The student must also discover the meaning of technical terms, obsolete terms, terms whose meaning has changed since the document was written, terms whose connotations have shifted with the passage of time, terms used differently in various regions, countries, or continents. Omissions must be supplied so as to retain the meaning intended by the original observer—perhaps one who left only his notes for the use of contemporary scholars. Abbreviations must be expanded accurately.

We sometimes forget how even common words change in meaning. For instance, one would naturally say that when it comes to measurement, a foot is twelve inches. Nevertheless, Harold Bergman found that when a

foot is a “Vicentine” foot describing the measurements of the Teatro Olimpico, a foot is only about four-fifths of the twelve-inch measurement with which we are familiar.⁵⁰

Discovering the original meaning of a term can be a difficult task, as Richard Southern showed, with the assistance of specialists in medieval Latin, in his painstaking examination of the word “place” in *The Medieval Theatre in the Round*. And musical instruments are not always easy to identify from their names, as shown by John H. Long in *Shakespeare’s Use of Music: A Study of the Music and Its Performance in the Original Production of Seven Comedies*.⁵¹

The critic must, moreover, supply from general knowledge about the period the meaning of otherwise obscure allusions to contemporary persons, issues, and events. A broad background aids in making sense out of the allusions of speaker or playwright. Certainly it would be difficult to interpret many controversies in the history of speech education were the scholar ignorant of the basic issues dividing educators of each particular time and place. Students likewise track down literary or classical allusions and study the implications of varying figures of speech.

Finally, the critic must be alert to differences between apparent meaning and real intent. Praise from the mouth of a speaker or on the pen of the critic may have been delivered with tongue in cheek and be intended as the severest criticism.

Is This Statement True? The second question in internal criticism is this, “Is this statement true?” By answering this question for each fact to be included, the scholar builds his study, piece by piece.

The first line of inquiry in answering this question tests the competence of the witness and uses the information about the writer discussed in the section on external criticism.

The second line of inquiry asks whether the author of the statement under scrutiny had any possible bias. Is there any reason for doubting the accuracy of his statement? Could any bias grow out of the observer’s party or religious affiliation, his race, membership in various groups, economic or social status, official position? A scholar seeks to discover any conceivable source of prejudice or bias on the part of the author. For instance, in his study of the Teatro Olimpico, Bergman faced the question of authorship of the famous perspectives. Bertotti Scamozzi claimed authorship and many writers on theatre history have simply taken his word for it.⁵² After quoting the statement by Scamozzi, Bergman wrote:

This immodest statement is cited by many writers as the proof that Scamozzi designed and constructed the perspectives. However, the statement was written many years after the project had been accomplished and the original architect had died. Scamozzi would not be the first man in history to embellish his memoirs with exaggeration. As a matter of fact Scamozzi had claimed authorship over several other pieces of work, which claims are open to doubt.⁵³

Evaluating contradictory testimony from eyewitnesses and the records of the Olympic Academy, Bergman concluded that the original plans were made by Palladio but adapted for a different type of play by Scamozzi.

In the case of anonymous statements—such as an unsigned newspaper story or a news or editorial paragraph in a popular magazine of opinion—the critic must seek to understand the point of view of the periodical as a whole, its editors and publishers.

A third line of inquiry concerns the internal consistency of the witnesses. Are all parts of the document consistent, or are there contradictions or apparent contradictions? Do other documents by the same witness agree, or does he change his mind and his report with the passage of time?

Self-contradiction is, for instance, one of the bases on which George Kernodle rejected Seldon Cheney's theory that the proscenium arch was derived from the Teatro Olimpico. Citing conflicting evidence in another of Cheney's works, Kernodle advanced his own theory that the proscenium arch owes much more to Renaissance art than to the classic theatre.⁵⁴

A fourth line of inquiry requires comparison of the report of a single witness with the reports of others. Where those reports are contradictory the student must seek to resolve the conflict by deciding in favor of one or the other, or by finding some way of reconciling apparently contradictory reports. In *Stage to Screen*,⁵⁵ Alexander Nicholas Vardac cited a statement by E. W. Mammen "that the Boston Museum first used a box set in November 1862, and . . . that the first box set on the New York stage was designed by Charles W. Witham for the Booth production of *Hamlet* in December 1869." Vardac, however, found contradictory evidence in a "promptbook marked by prompter and stage manager John Moore for the production of *The Corsican Brothers* at the Bowery Theatre, New York, on April 21, 1852. . . ." On the basis of a sketch in that promptbook, Vardac concluded that 1852, not 1869, marked the first appearance of the box set on the New York stage.

Where available reports agree on a particular fact or description, and those reports are independent in origin, the scholar can be reasonably sure that he has discovered the truth.

The critic must, however, beware of absolute likeness in two descriptions of an event. Is one description a direct copy or rewrite of the other, or are both dependent on a third source as yet undiscovered? In our day it is hard to realize how freely newspapers and other periodicals of an earlier day copied from one another, often without giving any credit and certainly with no qualms about plagiarism.

Contradictions must be scrutinized carefully to see whether they are basic differences or whether the student is simply taking as contradictory what are actually two different descriptions of the same speaker, audience, play, from two different vantage points or on two different occasions. Or the difference may be semantic, resulting from a misunderstanding of the language of one or both sources.

In summary, the scholar searches to the best of his ability for a competent and unbiased observer and reporter who has been in a position to observe and whose observations are confirmed by other equally reliable witnesses.

To Believe or Not to Believe. A final decision by any investigator to accept as accurate or reject as unproved or misleading any statement of fact depends on many different factors:

1. The critic's evaluation of the source of the statement.
2. The critic's discovery of confirmation in other independent reports, especially those from different political positions or critical viewpoints. He will of course give special attention to the "reluctant witness" whose testimony is contrary to the best interests of his own party, group, or personal beliefs.
3. The critic's evaluation of each statement in the light of everything he knows about the period under study—the persons, events, issues, total milieu. He will remember, of course, that new evidence may upset preconceptions and reverse judgments. An open mind is one of the marks of the scholar.

IV. EVALUATING DATA AND DRAWING INFERENCES. History is not synonymous with information, with the facts on which all historical interpretation is based. This is not to minimize the need for facts; all processes of external and internal criticism are designed to establish the facts. But facts by themselves, are seldom if ever the conclusion of a historical study.

Certainly the student should be required to have at his command a considerable body of historical data concerning the subject of his study "before he is permitted, let alone encouraged to discuss, write, or even to think about the meaning of history." So wrote W. H. Dunham, Jr., and T. C. Mendenhall II in a challenging article in the *AAUP Bulletin*, "Clio Need Not Be Bemused."⁵⁶ They continue:

However, the study of history goes, and should go, beyond the mere acquisition of factual information; it should incite the mind of the curious student to contemplate human life, thought, and action. . . . For to know facts without discovering their interdependence is futile, and history without interpretation remains devoid of significance.

Studies in the history of speech are inevitably concerned with relationships. Some of these relationships are those of comparison and contrast,⁵⁷ but the most important relationships are those of cause and effect. For instance, Forest L. Whan analyzed the immediate effects of the Lincoln-Douglas debates on the Illinois elections. His painstaking study is a model in causal analysis.⁵⁸

And in his study of nineteenth-century theatre Vardac found a rather sudden change in theatre practice. Two-dimensional scenery had satisfied the demands of generations of theatregoers; suddenly the critics became

aware of the shabbiness of the two-dimensional scenery. What had wrought this seeming miracle? What had caused this about-face in public and critical attitudes? Vardac concluded that the conventional scenic practices were exposed for the fraud they were by “the garish glow of the incandescent bulbs.” The soft glow of gas lamps had been kind to two-dimensional scenery; bright electric lighting dispelled all illusion of reality.⁵⁹

Causal relationships are seldom simple and never easy to study. Usually the student finds several causes, not a simple cause to effect relationship. Beware of the pat explanation.

Another intangible about which inferences must inevitably be drawn is the motive (often motives) underlying any work: play, dramatic production, speech, political campaign, new program for educating speech-handicapped school children, or new technique in speech education. The search for motives compels the scholar to draw upon and to interpret carefully all information obtainable.

In his brief essay interpreting “The Tragedie of Coriolanus,” Furness speculated concerning Shakespeare’s motives:

There are those who see in the composition a political motive; that Shakespeare desired to portray the struggles of the parliament and people at the beginning of the reign of a new king; again that Shakespeare is once more demonstrating the dangers of a democracy, and using the material found in his source, Plutarch, to voice anew his dislike of the common people. That Shakespeare in any one of the plays took advantage of the occasion to set forth his own opinions, either political, religious, or social, is difficult of belief. But it is quite believable that, understanding human nature as he did, he should make an intensely arrogant patrician such as Coriolanus give utterance to sentiments as regards his inferior with all the insolence and haughty disregard of their feelings consistent with his nature, while at the same time Shakespeare himself was far from maintaining any such opinions.⁶⁰

Inference concerning Shakespeare’s motives is supported here by a knowledge of the occasion on which he wrote, of the source (Plutarch), and of Shakespeare’s other plays.

Some historians insist, “I let the facts speak for themselves.” The truth is that facts do not talk. Facts are mute until someone with courage and insight puts facts together, draws the best possible inference on the basis of that evidence, and states a hypothesis or tentative conclusion as the result of his study. Drawing inferences is an essential part of historiography. Anything less is the work of the antiquarian—collecting facts (or antiques, relics, ancient coins or stamps) for their own sake rather than for the light they can shed on men and events.

Problems of organizing and writing the report are discussed in Chapter 15. Effective communication should be an important objective of anyone doing a historical study in speech.

AVOIDING PITFALLS IN THE HISTORICAL METHOD

Many are the pitfalls along the road of the scholar bent upon historical investigation. As any student of logic or former debater must know, the fallacies to which the human mind may succumb are infinite. This is no place to catalogue fallacies, but only to consider seven of the commonest pitfalls in the historical method:

The Fixed Theory. Every scholar must beware of the human tendency to find what he is looking for, to begin his investigation with a fixed theory that controls the entire study from the initiation of the research to the conclusion of the writing. It is all too easy to do a study proving what one wishes to prove. One prerequisite for the scholar pursuing historical or any other method of research is the willing suspension of belief.

The Hero Complex. If a student chooses to work on a particular man or movement, by that act he declares him or it worthy of serious and prolonged study. "Worthy" tends all too easily to become a qualitative term implying prejudgment concerning the "goodness" of the subject. Even the well-meaning scholar can easily become an active partisan of a speaker on whose work he spends so much time and effort. The same attitude could undoubtedly affect a study of a playwright, actor, or director.

The scholar must resist the natural tendency to make his subject his hero. A speaker may be well worth studying even though much in the wrong. In this connection read Waldo Braden's conclusion after prolonged study of the speaking of William E. Borah on the League of Nations:

But, judged in the light of subsequent events, Borah appears to be wanting in important respects which offset, to a considerable extent, his admirable qualities and reduce his stature as an orator. Borah, the ardent nationalist, was unable to recognize the changed position of the United States. His education and experience had not stirred him to visualize the broad vistas of the future. His argument remained consistent with Washington's Farewell Address and the popular interpretation of the Monroe Doctrine. A more brilliant and far seeing orator and thinker would have realized the obsolescence of the nineteenth century American foreign policy and the implications of twentieth century progress.⁶¹

Thus Braden avoided the common danger of making his subject his hero.

At several conventions of the Speech Association of America, Bower Aly reminded his hearers that demagogues and other "bad men" need much more serious study than they have received in the past. Most students in speech would find it difficult to make a hero of Joe McCarthy, Huey Long, Gene Talmadge, or any of the many other famous demagogues. Yet such men need careful attention from the student working in the history of American public address.

Inadequate Criticism of One's Sources. Sometimes the beginning student hastily assumes that all writers are or intend to be precise in their statements. If he—the student—were to describe a contemporary speech

or play for the benefit of future generations, he would be as accurate as possible. To judge other people by one's own efforts or the practices of another age by those of one's own time can lead to serious error.

The literary or patriotic historian of an earlier day fixed his attention on the large canvas of history and was often casual in matters of detail. Bancroft urged the engraver to remove the warts from Benjamin Franklin's nose and Jared Sparks improved the grammar of George Washington's letters.⁶²

What was true of the historian was even more characteristic of the newspaper reporter. He had fewer facilities to make accuracy possible, fewer competitors to expose factual error or misrepresentation. Many papers had a tradition of violently partisan and belligerently yellow journalism as a professional guide.

No scholar working in the history of his field can afford to forget the constant need for historical doubt. His search for *any possible reason for disbelief* should be as persistent as his scholarship.

Ignoring One's Own Prejudices. In 1933 Charles Austin Beard gave his much-quoted presidential address at the American Historical Association meeting in Urbana, Illinois, "Written History as an Act of Faith." In it he said that:

each historian who writes history is a product of his age, and . . . his work reflects the spirit of the times, of a nation, race, group, class, or section. . . . Every student of history knows that his colleagues have been influenced in their selection and ordering of materials by their biases, prejudices, beliefs, affections, general unbringing, and experience, particularly social and economic; and if he has a sense of propriety, to say nothing of humor, he applies that canon to himself. . . .⁶³

The *Harvard Guide* (page 11) speaks for all of us:

Our unconscious prejudices of section, religion and the like are always jogging our elbows. . . . Even in the freest countries, timid souls among historians suffer a constant fear of authorities or of public opinion, while occasional crusades by pressure groups tempt them to suppress what they believe to be true, or to state what they know to be false.

Failing to recognize one's own biases is a serious pitfall in any historical study. One step in the right direction is to confess them. Another answer is to do one's best to overcome them, to work all the harder to understand the point of view foreign to one's own training and experience. Probably the best historians strive to be impartial and objective toward all varieties of men, movements, and ideas, while admitting the impossibility of perfectly achieving that objective. In the words of the *Harvard Guide* (page 20): "they forswear all single-valued or dogmatic theories of history and subject theory itself to the perpetual countercheck of facts."

Using the Present as a Frame of Reference. “Interpreting the past by the ideas of the present is . . . sure to pervert our judgment as to motives and character,” wrote George in his discussion of *Historical Evidence*.⁶⁴ Think, for instance, of these three issues and the changes in our public attitudes toward these concepts during the past few hundred years: democracy, slavery, religious toleration. Are we to criticize the past in terms of our contemporary ideas on these or similar subjects?

If it is true that the history of our country has to be written anew for each generation, it is partly a result of too much projection of today’s values on yesterday’s history. Even so, the historian in speech cannot if he would avoid questions of ethical judgment and permanent value.

Mistaking Casual for Causal Relationships. Every scholar must beware, whether studying past or present, of mistaking casual for causal relationships. Simply because one event follows closely on the heels of another is no guarantee that one is caused by the other (“post hoc, ergo propter hoc”). Casual coincidence of space or time is often confused with a causal relationship vital to the investigator’s study.

Premature Expressions of Certainty. History is never written once and for all. Historiography is a continuing process, with new evidence, new insights, new analyses casting new light on old issues. No matter how carefully the scholar documents his inferences from materials available to him, he must always guard his conclusions by explicit recognition that his judgments are his conclusions at the time at which they are written; that they are subject to change with new evidence or new insights. The facts of today are the fictions of tomorrow.

SEEING VALUES IN HISTORICAL STUDY

What is the value of historical study? Surely this question has occurred to you as it has to every scholar using the methods of historical research—for a historical paper, for a study in the history of public address or theatre, or for the background needed for a study in speech education or radio.

George Orwell’s fictional account of a totalitarian dictatorship, *Nineteen Eighty-Four*,⁶⁵ is the last place one might expect to find testimony to the value of history. Yet there it is, in the job of Winston Smith, “hero” of the book, whose job it is to rewrite history continuously to make it conform to the needs of the present as interpreted by the all-powerful Inner Party. “Who controls the past controls the future,” ran the party slogan, and “who controls the present controls the past.”

The *Harvard Guide* (page 9) says almost the same thing in a different way: “Historians have a peculiar relation to the public, since they are at the same time the creators, the guardians, and the revisers of tradition. More than any other class of writers or teachers they influence, through their access to the youthful mind, a people’s conception of its past. As

such they have perhaps more influence on events and on the shaping of the future than they modestly admit.”

From our study of history we learn where we have been and how we got where we are. Through our study of the past we learn to understand the present more fully. Perspective, understanding, tolerance—all are products of historical study. Through it we gain perspective on what we are doing, whether in public address, theatre, speech education, radio and television, or speech correction.

FOR EXAMPLE

The historical project I know best is that which I completed at the State University of Iowa under the direction of A. Craig Baird. Naturally I am best prepared to use this as an illustration of the historical method. It will, therefore, be written in the first person.

Finding a Subject. I have always been interested in American History, having had an undergraduate major and a graduate minor in that field. The period of the Civil War has, moreover, been for a long time one of my particular favorites. My first paper on Andrew Johnson’s “swing around the circle” was written as a term project in the History of the South at the State University of Iowa. I once considered a dissertation on Lyceum speakers, and later one on Woodrow Wilson’s 1919 “swing around the circle” in defense of the League of Nations. When Clair Henderlider beat me to Wilson⁶⁶ and I saw Lyceum research stretching out indefinitely, Andrew Johnson became the logical choice. My central question might be stated thus: What was the relationship between what Andrew Johnson said and did on his famous 1866 “swing around the circle” and the victory of his Radical opponents in the congressional elections?

Discovering Sources. For my first paper I nearly exhausted materials available at Iowa City. Most of my doctoral research was done in newspapers in cities along Johnson’s route. Unfortunately my research was completed before microfilming was as common as it is now. I used bound volumes of the newspapers themselves, managing to consult newspaper files at most of the large cities at which Johnson spoke. Documents at the Library of Congress, especially the Johnson papers, proved exceedingly helpful, as did certain government documents, particularly the record of Johnson’s impeachment trial.⁶⁷ I should have liked to use the Charles Sumner papers at Harvard University but the possible value of these documents seemed too small to justify a major trip to consult them.

One previous dissertation on “The Oratory of Andrew Johnson” had been completed by Joseph Baccus, of Redlands University, at the University of Wisconsin. In his dissertation Baccus included one chapter on the “swing around the circle” but confessed that he had given it only cursory treatment, thought that the study was well worth doing, and offered substantial assistance in the investigation.

Recording Evidence. I wound up, as most students working in the history of American public address seem to do, with a “mountain” of evidence. I had some firsthand reports, particularly from the *Diary of Gideon Welles*,⁶⁸ William H. Crook’s *Through Five Administrations*,⁶⁹ and the *Trial* record. Most of the rest were anonymous newspaper accounts. Since only three of the speeches I studied had been printed in places where they were readily available, I made it my business to copy (and eventually to include in an Appendix to my dissertation) the texts of all Johnson’s “swing-around-the-circle” speeches that I could locate, including variant texts in several places. These were copied on regular sheets of typing paper, as were certain extended and conflicting descriptions of Johnson’s reception at Buffalo, Indianapolis, and other points. Two mistakes might be noted: Most of my notes were made on 4x6 cards, but a few were written on half sheets of typing paper. This gave me a problem when notes had to be arranged for final typing of the dissertation. Secondly, in a few cases I made abstracts of certain particularly valuable articles rather than putting the same materials on note cards from the first. This made double work for me—either transfer “statements” from those abstracts to regular note cards or face a difficult time arranging them for use.

Testing the Authenticity of Sources. One of my major problems was in determining just what Johnson said, in solving the dilemma of textual authenticity. I never quite satisfied myself that I had a good text of Johnson’s major address at New York City, but texts for Cleveland and especially for St. Louis appeared to be excellent. I have discussed these last two speech texts at length in the *Quarterly Journal of Speech*.⁷⁰

Since much of my evidence came from unsigned newspaper stories, my main task of external criticism was to identify the newspapers, their editors, and their political allegiance. This I did, to the best of my ability, and have discussed the role of the newspapers in the campaign in the *Publications* of the East Tennessee Historical Society.⁷¹

Evaluating the Accuracy of Statements. Conflicting testimony repeatedly forced me to evaluate carefully and painstakingly the accuracy of statements. For instance, one paper said that Johnson was received at Buffalo with frigid silence; another paper insisted that cheering crowds lined the route taken by his carriage. Which was to be believed, or did the truth lie somewhere between the two diametrically opposite statements?

One of the most interesting questions concerned Johnson and liquor. Was Johnson drunk—as many newspapers and some historians allege—during his swing around the circle, and particularly during some of his fire-eating speeches? The evidence here was conflicting, but careful study did not reveal a single eyewitness who said he was drunk, whereas a number of men who accompanied the party throughout its tour (notably Gideon Welles, writing in his famous *Diary*, and Lawrence E. Cobright of

the Associated Press, testifying under oath during the impeachment trial) said that Johnson was not.⁷²

Drawing Inferences. On the basis of all facts accumulated and tested, certain inferences and conclusions appeared inevitable to me. I had no difficulty drawing conclusions from the study; organizing and writing the report almost forced them upon me.

The most basic question for a student of speech concerned with the total effect of Johnson's speaking. Some authorities have argued that his cause might have won had he stayed in Washington. Others said that he lost ground by making the "swing-around-the-circle," though the issue was scarcely in doubt when he began. My own conclusion on this point is spelled out in the *Speech Monographs* abstract:

Johnson lost the elections, but his defeat should not be interpreted either as a referendum on Presidential Reconstruction or as a test of the President's speech effectiveness. He failed, not as a statesman or speaker, but as a practical politician in neither holding nor winning party support. Radicals controlled the Republican Party and Copperheads the Democratic, while Conservatives found themselves without party organization.

The importance of Johnson's "swing-around-the-circle" in determining the results of the elections has been overestimated; certainly he failed to achieve what would have been a political miracle. In this critical hour, when a lesser man might have surrendered without a struggle and a greater one master-minded victory through new political strategy, Johnson relied upon the weapon he knew best: his own powers of oral popular persuasion. He lost, to be sure, and with him fell Presidential Reconstruction. But the Radicals' margin of victory was not large, and the battle hard fought.⁷³

Organizing and Writing the Report. My own study went through three stages, each with a different pattern of organization. The first study was historical narrative, with some speech criticism added to the term paper in history. The second draft expanded the first considerably, and included nearly all the material of the final draft. Organization of the second draft was a compromise between the historical narrative and the final pattern used in the completed dissertation. On the insistence of my advisers, the final draft followed the more traditional pattern of the rhetorical dissertation. Chapters concerned the occasion ("Johnson Takes the Stump"), the argument ("Johnson's Case for Presidential Reconstruction"), the composition of his speeches ("Speech Composition"), his delivery ("Johnson's Speech Personality"), his relationships to the newspapers ("The President and the Press"), and his audience and their response ("Audience Response"). An introductory chapter, the summary and conclusions, an extended Appendix, and a bibliography made up the dissertation.

Avoiding Pitfalls. It would have been easy to make Andrew Johnson a hero. Historians had belabored him for so long, and his rehabilitation started so recently, that it would have been easy to write a eulogy.⁷⁴ On

the other hand, Johnson lost, and there had to be an explanation. Did Johnson do anything that helped bring on the defeat of Presidential Reconstruction? One answer appears to be that he at least failed to preserve it, that he was not as strong a national politician as he might have been.

It would have been easy to make Charles Sumner and Thaddeus Stevens the villains of the plot. In a sense, perhaps, they were, but it is hard for us today to realize how high were the emotions of that day over the issue of slavery, and how hard Sumner and Stevens fought against that Southern institution. It would have been natural to project upon the past the values and standards of today, and to forget the nature of stump oratory, of partisan and personal journalism, of the excesses of party feeling characteristic of the period, and of the intense hatreds generated during the Civil War. Repeatedly I had to remind myself to see events from the perspective of the period in which they occurred.

EVALUATING HISTORICAL RESEARCH

Implicit in this entire chapter are the criteria by which a piece of historical research may be evaluated. In the following paragraphs they are made explicit and brought together in one place.

1. How carefully is the central problem stated? Does the writer make clear exactly the questions with which his research began?

2. How thorough has the research been? Have primary source materials been consulted at all key points of the inquiry? Have any materials important to the study been ignored? Are various kinds of sources represented in the study?

Has the student properly tested the sources used in his study and discarded those of lesser value? How well has he applied the canons of internal criticism to resolve differences in report or in interpretation among his sources?

3. How accurate is the citation of sources and the quotation of statements from those sources? Inaccuracy is inexcusable in the student of speech (or anything else) who would do a historical study. Are quotations accurate in spirit as well as letter; do they fairly represent the intent of the selections from which the student is quoting?

4. With what degree of penetration and insight has the selection of materials been made? Is the emphasis placed on the important ideas or contributions of this particular study? How well has he bridged gaps in available material?

5. How carefully are the conclusions stated? Or has the student been willing to draw conclusions from his research, conclusions presenting tentative answers (at least) to the central question(s) with which the study began? Do the conclusion-statements show the student's realization that he may not yet have "the last word" on the subject, that new infor-

mation and new insight could yet cause him to change these conclusions?

6. How well written is the report of the historical research? Is the grammar acceptable, the vocabulary adequate without being ostentatious? Is the report well organized, easy to follow? And is it readable? Does it show any literary quality lifting it above the routine?

SUMMARY

For the fullest and best treatments of historical methods, as well as for time-person-place orientation to the period in which we work, consult the professional historian. If this chapter serves as an introduction to historical methods and a guide to their application in speech, it will accomplish its purpose.

Speech scholars in public address and theatre use historical methods most extensively; there is much historical research in speech education. Some studies in speech correction, radio, and other areas also require historical study.

Historical methods include four steps: (1) discovering sources, even the most hidden and most unlikely; (2) external (lower) criticism of sources to examine their authenticity and their original form and meaning; (3) internal (higher) criticism to determine the accuracy of statements, (4) drawing inferences and making evaluations on the basis of the best available information.

Historical research provides many pitfalls for the unwary scholar; (1) the "fixed theory" guiding research, (2) the "hero complex," (3) uncritical acceptance of the published record, (4) failure to remember one's own prejudices, (5) using the present as a frame of reference by which to judge the past, (6) mistaking casual for causal relationships, and (7) premature expressions of certainty. On the other hand, the ability to learn from the successes and errors of the past is a distinguishing characteristic of the human race. Despite the dangers of too literal historical analogy, he who ignores his heritage cannot appreciate fully or interpret accurately the present.

Some persons like historical study; some would be miserable using these methods. Ask yourself some of the questions suggested in the section on "Personal Characteristics" to see where you belong.

Finally, evaluation of a historical study requires the application of several specific criteria, as well as common sense. Not all carefully documented studies, bulging with footnotes and loaded with annotated bibliography, are worth the paper they are printed on. Many less pretentious studies, because they ask the right questions and make the required examination and evaluation of sources and information, are well worth your study.

No matter what your field or your interest, you cannot completely avoid

history or historical methods. Somewhere in your graduate work you will be exposed to some examples of historical scholarship in our professional field.

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CHAPTER 5

The Critical Approach

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INTRODUCTION

Our approach to research criticism is keynoted for us by R. D. Carmichael in *The Logic of Discovery*† where he wrote: “Neither the authority of man alone nor the authority of fact alone is sufficient. The universe, as known to us, is a joint phenomenon of the observer and the observed; and every process of discovery . . . will acquire its best excellence when it is in accordance with this fundamental principle.” Speech criticism, as known to us, is a joint phenomenon of the critic and the criticized; and every process of discovery relevant to speech criticism will acquire its best excellence when it is in accordance with this fundamental principle. The authority of the critic alone is not what we mean by excellence in research. Nor is the authority of the observed—facts cannot speak for themselves. But critics can speak for themselves, with authority, if they will speak for the facts as well. To be excellent, criticism must be constructive: helpful toward creative building, helpful toward that pursuit of excellence which is to us the proper vocation of man.

Constructive criticism is a prerequisite of improvement in every area of the speech field. Without the dependable results of research, together with effective teaching and learning, there could be little if any growth. The critical approach contributes to this growth not only when it is the dominant method but also when the experimental, historical and other methods are dominant; for every investigator employs critical procedures in the normal course of the research process. And the criticism involved in the teaching of speech—including theatre and clinic—is cut from the same cloth as research criticism.

In the drama called research, investigators assume critical roles. When studies are conducted by research teams, each investigator plays the role

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in which he is specialized; but single investigators must be versatile artists who can take whatever parts are required by the type of research in question. The productions are classified according to the dominant methods of research. When the investigator is cast in the leading role as a critic the production is known in research as the critical method. The critic also takes the supporting roles of speech historian, experimenter, creator (and any other supporting roles of the particular research play) whenever the suitable occasions arise in the normal course of producing criticism. Conversely, when the investigator is cast in the leading role as speech historian, as experimenter, as creator (or any other type of research play), the supporting role of the critic is among those taken by the same actor who plays the lead.

DEFINITIONS

1. *The critical approach*—sometimes referred to as the analytical approach—may be understood as only one kind of research process designed to guide the investigator in *evaluating* phenomena of speech. Yet there remains the need to distinguish between the leading and subordinate roles of criticism. By using “method” as the more general term, and “procedures” as the more specific and descriptive term, we not only make the distinction required for clarity but also suggest that research methods are categories of similar procedures. Thus critical *procedure* is the label assigned directly to whatever any investigator is doing—including his feeling-thinking-judging—as he employs the techniques or “tools” for evaluating phenomena of speech; critical *method* is the more general term assigned to the whole family of procedures. This family name is used in pointing to research designed to guide the investigator when evaluation is the primary purpose. When evaluating speech phenomena is a subordinate purpose—as it must be when any other method is dominant—then it would be confusing to say, for example, that the experimenter used the critical method. To avoid that confusion we say that the experimenter, the historian and the others employ certain critical *procedures*—not the entire method or the whole family, but one or a few members of the family.

Thus we may define the critical approach as the method, or procedures, of *evaluating* phenomena of speech according to appropriate criteria or standards of judgment.

2. *Evaluation*—a term roughly synonymous with judgment—includes the investigator’s interpretation of data as perceived. *Interpretation* refers to the choosing of a meaning from possible meanings (as in oral interpretation and drama) as well as that more specialized process of reasoning from data toward conclusions sometimes called the interpretation of the findings.

3. *Phenomena of speech* stands for any observable objects or events involving speech, including speakers, actors or readers; including recordings, documents, scripts, plays, texts of speeches or outlines; including not only

special events but any kind of speaking, acting, reading, listening, viewing; and including non-verbal events of communication such as pantomime and gestures. Thus objects and events observed by means of radio or television are included as well as the phenomena of face-to-face speech occasions. The phenomena involved in the clinician's work with a client may also be investigated with a critical orientation for the sake of evaluating speech therapy.

4. *Criteria or standards of judgment* are the principles or guides in comparison to which the phenomena are critically observed in reaching a judgment of the *quality* of the particular work or effort. Whatever we judge as the degree of excellence achieved or as the extent of "success" or "failure" is judged according to some ideas or ideals, sometimes called "yardsticks." They may be personal, they may be adapted from Aristotle and the ancients, they may be derived from more recent philosophies; but, regardless of the source of our criteria, they should be appropriate to the specific problem under investigation even if they must be tailor made. In any case, the statements of the necessary and sufficient qualities for determining excellence constitute our standards of judgment.

Now we can see more clearly what the investigator is required to do when he is cast in the leading role as a critic. The following procedures make up the minimum requirements of the critical method: (1) select the phenomena of speech to be evaluated or criticized and state the research problem; (2) orient the problem and establish the need for the study; (3) design the research by adapting or creating appropriate criteria and by planning how to use them; (4) control the factors involved in assembling and studying the relevant data; (5) evaluate the phenomena by observing them in relation to the criteria; and (6) draw conclusions from the data as evaluated.

OCCASIONS FOR TAKING THE CRITICAL APPROACH

We need to use the foregoing distinction between method and procedures because your decision to employ the critical method means that you will specialize to the extent of becoming a competent critic. Instead of becoming an expert in experimental design and statistics, for example, you will specialize in the designing of research criticism together with the associated processes and techniques of evaluation.

If you want your conclusions to be composite critical judgments of any speech phenomenon, or any combination of phenomena, then the chances are that you should employ the critical *method*.

PERSONAL CONSIDERATIONS

Do you believe with Poincaré the mathematician that knowing how to criticize is good but knowing how to create is better? If so, then perhaps you should undertake creative research or else resolve to put up with not

merely the gnawing of envy but the cramps of frustration in order to become as creative as the disciplines of criticizing allow. Critics are not typically as free to invent as the speakers, playwrights, poets whose creations they may be criticizing.

Or the critic may look with envy upon the statistical reports of validity, reliability and level of significance; for the best that he should expect to achieve in this direction is to acknowledge these statistical criteria as ideals or models of rigor to be emulated but not imitated. Furthermore, the critic should not expect to enjoy more than a minimum of professional agreement on conclusions even if the same criteria are involved. Nor should the critic expect his results to be as original or creative as they might have been; if only it were not necessary to base evaluations upon the foundation of pertinent facts, the critic would enjoy more freedom.

Those who see more significance in the qualitative than in the quantitative aspects of research and teaching may prefer to invest their efforts in critical investigations. But to realize the potentialities of such a choice means that the student will take less time to push back the boundaries of his ignorance about the more technical problems and procedures; for the hours spent studying rhetoric, poetic and history cannot be spent at the same time studying statistics, phonetics and acoustics. Here the personal considerations become professional problems of choice. Our advice is to pursue your deepest interests—wherever they lead, with enough anxiety about pertinent weaknesses to motivate action. Thus a potential critic might invite himself to study G. Polya's *Patterns of Plausible Inference*, Jean Piaget's *Logic and Psychology*, Wallis and Roberts' *Statistics: A New Approach* or even take an advanced course or seminar in a subject considered by the over-specialized to be out of his world.

You have observed that some people will go to almost any length to avoid making a judgment and thus reaching a decision? If you are one of these people, the critical method may be exactly the one you do not want to employ. But if, in the pursuit of excellence, you enjoy the almost painful pleasures of constructing value judgments, then may we welcome you to the calling of Socrates?

A PATTERN OF PROCEDURES FOR THE CRITICAL METHOD

In this production you have been cast in the lead to play the role of a judge. Selected phenomena of speech are on trial in your court. During the course of this trial you will take each of the other roles in the play, including both the plaintiff and defendant, including both the prosecuting and defense attorneys, including the jury. You are holding court in the interest of justice, in the service of society; and the defendant is innocent until proved guilty—but guilty *only on specified counts which must be proven* with at least a preponderance of evidence, wherever possible with proof beyond reasonable doubt.

To play the judge, you need to assimilate within yourself—in your mental laboratory—not any script to be memorized word for word, but a model brief to guide your extemporaneous performance. We designed this model brief or pattern of procedures to expose the anatomy of the critical method.

In the first act of your performance the defendant is summoned to appear at a hearing of the problem; a true bill must be returned to warrant the trial. In the second act the cases are prepared with briefs designed to fit the particular problem. Then come those most dramatic scenes of the third act during which the judge exercises control over the processes of sifting, analyzing and evaluating both the evidence and the reasoning used in building the cases before the jury; the judge acts as the arbitrator of the conflict between prosecution and defense; the judge instructs and charges the jury and the jury reaches a verdict: the conclusion of the trial. We turn now to scene 1, of act 1.

1. *Discovering and structuring your research problem.* Even if it is *your* problem—one that you recognized by intuition, when it was an embryo—still, the work of solving it may be mostly tedious labor. (The reward comes with the relief of tension and frustration if and when a verdict is reached.) It is extremely rare for a student to be highly motivated in research by the teacher's curiosity. Hence the problem best for you probably must be coaxed into awareness. How? Perhaps by asking yourself questions of the type, "What do I want to find out? Which speaking, acting, reading or other phenomenon of speech would I most enjoy trying in my court of criticism?" Lois Joan Sanders selected "The Writings of Carl Sandburg" for her thesis in order to produce "An Appraisal of Their Value for the Public Reader."¹ Burrell F. Hansen made a "Critical Evaluation of a Documentary Series of Radio Programs on Racial and Religious Prejudice."² If you visualize the writings of Carl Sandburg as "chunks" of data, and if you see Hansen's series of radio programs as if it were composed of "threads" about prejudice to be traced through the series, then you will recognize the "chunk" of time and the "threads" of theory as combined in Douglas Ehninger's study of "Selected Theories of Inventio in English Rhetoric, 1759-1828."³ It seems to be helpful for students to realize that most problems of criticism are more easily discovered by looking for both "threads" and "chunks" in some combination. Then it may be easier to bring out most clearly and accurately, by the way you state your problem, the *relationships* among the parts that compose the whole problem. It is your understanding of how the "bits" of data may combine into "threads" and "chunks" (and they, in turn, combine into a whole picture) which enables you to formulate your problem with a structure that fits the situation you propose to study. Such a fitting statement brings your problem into focus. Then you know—tentatively—what you want to find out, what combination of speech phenomena may be involved. The research problem of critical studies is usually stated in the form of questions for

which only evaluations will make fitting answers; or else as a declarative statement of the purpose of the study.

2. *Establishing the need for your proposed study.*

a. A standard procedure for answering the question: Has my research problem been solved or is it being solved?

(1). List all of the seemingly relevant indexes and bibliographies from Ireland's *An Index of Indexes* and Besterman's *Bibliography of Bibliographies*. For "Doctoral Dissertations in Areas Contiguous to Speech" see *Speech Monographs*, XXIV, No. 4, 1957, 299 ff.

(2). Examine each of the indexes and bibliographies on your list to eliminate the ones which are not useful; e.g., the dates covered by an index may not include the period of time involved in your research.

(3). From the remaining (potentially useful) indexes and bibliographies on your list, make another list by means of which you can locate all of the research reports and other literature that seems relevant as judged by titles, annotations and abstracts.

(4). Examine this body of literature item by item and prepare a complete bibliography card for each item judged to be pertinent. These cards should be prepared in the form considered proper for writing footnote references and for compiling your bibliography. Also, you will use these cards to relocate the items to be covered in your critical survey of the pertinent research literature and to verify any quotations or other data to be used in your final manuscript.

(5). If you discover any reports of research which you are unable to distinguish clearly from your own proposal, then consult your thesis advisor with a description of that other study in hand and the basis of your concern in mind. In the absence of any such reports you may write a qualified negative answer to the question which this standard procedure is designed to answer.

b. A standard procedure for orienting your critical investigation.

(1). Write your research problem into historical perspective by tracing the pertinent developments along the stream of studies leading up to the tributary which brings you into this branch of research.

(2). Uncover the relationships between your proposal and its nearest relatives by describing the pertinent research (as reported) in comparison *and contrast* with the corresponding details of the plan you are developing. Let the need for your investigation *emerge with* the differences. Then point out the potential contribution of your own study by answering the question, "What difference might these differences make?"

3. *Designing research to be done by the critical method.* Instead of acting as if experimenters had a monopoly on research design, we may improve criticism by emulating experimental designs. Like experimenters and statisticians, we should tailor the design to fit the form of the problem. Thus the key idea in designing critical research is to plan for a "best fitting

suit” of procedures by matching the structure of the design to the structure of the phenomena to be criticized.

a. Construct a tentative map of the problem’s territory. Such a map shows how the “bits,” “chunks” and “threads” of data may be related to one another: the map shows—tentatively—the probable *structure* of the territory to be investigated. One does this mapping in order to discover that structure which the plan of investigation must have in order to fit the structure of the phenomena to be criticized. When these structures are mismatched the *validity* of the criticism is questionable. This is the reason why we rejected a Master’s thesis proposal according to which the investigator would have evaluated the persuasiveness of Undershaft (in Shaw’s *Major Barbara*) by utilizing criteria of persuasiveness adopted from public address. Instead, we favored a proposal beginning with the recognition that a play is not a speech: the two are structured differently hence ought to be criticized differently. According to the accepted proposal, this student—with guidance of her committee—will *create* suitable criteria for evaluating the *theatrical* persuasiveness of Shaw by means of the play, probably with a focus on Undershaft yet including his interactions with Major Barbara and other characters in the play, etc.

(1). To whatever extent this territory should be reconstructed for criticism from available documents, historical procedures should be employed. The competent critic shares the historian’s strong preference for primary sources with established authenticity. In Goodwin Berquist’s doctoral dissertation—a critical study of “The Parliamentary Speaking of John Pym: 1621-1643”—“thirty-five speech texts were . . . verified as genuine reports of speeches actually delivered by Pym. Earlier investigators had validated fifteen of these texts, and the writer corroborated twenty more *by a careful comparison of contemporary sources.*”⁴ More generally, you may need to employ the historian’s procedures of internal and external criticism (see Chapter 4).

(2). To whatever extent the problem’s territory should be prepared for criticism by describing controlled observations, you should employ procedures borrowed from other methods. For example, Jed Davis, Jr. combined procedures in “A Critical Survey of the Stage Lighting Equipment in the High Schools of Minnesota.”⁵ Another example is found in Murray Yaeger’s “. . . Analysis of Edward R. Murrow’s ‘See It Now’ Television Program,” which was “patterned after the lines of the rhetorical investigation” and employed as sources not only printed materials but “interviews with Murrow, Friendly, and . . . staff members” together with “personal observations gained from three weeks with the . . . staff during the final stages of the ‘Egypt-Israel’ production.”⁶ Radford Kuykendall studied both “The Reading and Speaking of Vachel Lindsay” for his dissertation.⁷ And William Charles Redding, then at the University of Southern California, investigated “current methodology in rhetorical criticism with a view to developing an instrument for analyzing persuasive speeches” and then

utilized the instrument in an “intensive content analysis” of a sample of thirteen of Dewey-Roosevelt 1944 campaign speeches.⁸ As these examples suggest, there is no theoretical limit on the borrowing by a critic from the procedures of other methods.

b. Now let us assume that you have completed the tentative mapping of your problem; hence you know something about the structure of the phenomena to be criticized. You are going to attend to the validity or pertinence of your conclusions by tailoring the design to suit the anatomy of your problem. Those conclusions will certainly be the joint phenomenon of you and your data. But professional *research* criticism—unlike the amateur’s judgment—is comparable, by way of loose analogy, to measurement. The critic’s yardstick—better yet, let’s think of a balance (the emblem of justice)—holds on one side the criterion or standard of judgment. The critic imagines the phenomenon to be placed on the other side, in comparison with the appropriate criterion, where he can observe: (1) whether there is an obvious, or questionable, imbalance; (2) the direction of the imbalance, if any; and (3) the approximate relative position of the two platforms of the balance when they stop moving. Then different phenomena can be weighed in succession, and in various combinations, against the appropriate succession, and combinations, of criteria: and, by comparing the direction and approximate extent of imbalance, more or less coincidence can be observed among the weighings. The data produced by making these coincidence observations may be arranged into a rank order—NOT intervals—and, in certain cases with carefully appropriate designing, fairly reliable *rank order* correlations may be figured out.⁹

4. *The criteria or standards of judgment.* To understand that your judgment of whatever you criticize is determined by weighing it *on balance with appropriate criteria* is to understand a need to be careful for the sake of validity. Take pains to select and adapt—or else create—*appropriate* criteria. Inappropriate criteria usually mean irrelevant criticism.

The traditional canons or principles are not yet prepared to serve as your criteria; for they are the general norms from which you derive your particular criteria by adaptation or creation. To you, this distinction between norms in general and criteria in particular is fundamental, hence important, in designing your research. Since certain research techniques and certain norms go together, the first step in designing with respect to criteria is to suggest various approaches to yourself by considering the various norms. Although we group these general norms into their traditional categories, there is no immutable law to keep you from deriving criteria from any combination of norms. Nor is there any theoretical restriction on the phenomena of speech which may be criticized by appropriate criteria.

a. The rhetorical norms include the classical canons and modes of proof.

As you may know, there are five traditional canons of rhetoric: invention, arrangement, style, memory, and delivery.¹⁰ Invention and arrange-

ment imply criteria of excellence in the research, the design and development aspects of speech preparation. One example of a criterion statement might be: "Compared with Henry W. Grady's excellent invention and arrangement in 'The New South,' how well did Booker T. Washington meet the needs of his audience in The Atlanta Address?"

Style and delivery imply criteria of excellence in artistic expression and communication, including effectiveness in the use of language together with the control and coordination of vocal and visual symbols in the presentation. "How clearly . . . accurately . . . vividly . . . impressively . . .?" is a skeleton of the form ordinarily given to criteria of style. Given a similar form, criteria of delivery may discipline a critic's judgment with respect to poise, gracefulness and timing.

When Carl Pitt evaluated Wendell Willkie's 1940 campaign speeches "in terms of delivery, invention, arrangement, style and audience adaptation," he adapted the classical canons at least to the point of omitting memory. And "audience adaptation" must involve not only the rhetorical canons but the modes of proof as well.¹¹

Beatrice Golder's "Evaluation of the Logical, Ethical and Emotional Proof in Selected Speeches of Robert M. LaFollette in the Presidential Campaign of 1924"¹² is a fairly typical example of how the classical modes of proof are used in judging a speaker's effectiveness. Not so typical is Ernest Borman's doctoral dissertation, which not only combines the use of canons and proofs, but illustrates the point that suitable aspects of broadcasting may be studied rhetorically.¹³

b. The theatrical norms, like the rhetorical, were formulated by Aristotle. In both his *Rhetoric* and his *Poetics*, Aristotle discovered and synthesized the constituents invariably present in the speeches and plays available to him. He found out that everything which he considered to be a play always involved people *doing* something. It still does. Neither the centuries nor modern inventions alter the basic requirement of something happening in every kind of play, whether the characters are on stage or film, television or radio. You may therefore begin with *The Poetics of Aristotle*¹⁴ as your primary source of ideas from which criteria may be designed to fit the requirements of criticizing even the most modern plays, acting, etc.

According to Aristotle's *Poetics*, there are six norms: three internal; three external. The function of the "externals" is to suggest time and place, mood or atmosphere. Thus Aristotle's *spectacle*—including what we know nowadays as lighting, costumes, make-up, sound effects, etc.—enhance the effectiveness of the play. And Aristotle's *diction*—the oral interpretation of the actor's lines—enhances the effectiveness of the character. The third external, lyrical song, is not important in most modern plays except musicals.

Spectacle and diction are external to the internals! We agree with Aristotle that the three internals—plot, character, and thought—are more important than the externals. Your criteria for evaluating the plot are stand-

ards set up for criticizing the representation of the action—the doings. Your criteria for evaluating a character are standards set up for criticizing the portrait of the character as drawn by the playwright; e.g., Undershaft in *Major Barbara*; Willie Loman in *Death of a Salesman*. Your criteria for evaluating the thought are standards set up for criticizing the theme of the play.

To exemplify the creation of criteria from norms, let us begin with Aristotle's first and most important norm. While bearing in mind that the criteria must be observable, put yourself in the position of a witness (in the audience or as a reader) and *analyze* the plot. Part of the excellence of a plot is an observable unity of action,¹⁵ hence, unity of action—as judged in comparison with plot in another play or with an explicit model of excellence—is a criterion. For example, the unity of action in *Strange Interlude* by Eugene O'Neill is weaker than the unity of action in his *Desire Under The Elms*. This criterion might be stated as the questions, "How well unified is the plot? Well enough to make the plot an organic whole?" Then, by further analysis and similar constructions, proceed to state the criteria for evaluating that certain magnitude or sufficiency of length that a plot must have to enable the action to *evolve*: the reversal from good to bad fortune, or vice versa, requires time enough to seem plausible. This criterion suggests a third, namely, that the actions in the evolution of the play need to be motivated: "To what extent does each action grow out of the preceding event and promote the events to follow?" A fourth criterion concerns the inevitability of the outcome.

You may proceed to set up equally appropriate criteria for judging the remaining norms of character and thought, and the external norms of spectacle and diction, by following the pattern of the foregoing example. Remember the basic requirements: (1) criteria must point to observables; (2) these observables are products of norms, usually derived by analysis; and (3) the statements of criteria call for evaluations, usually in a language of degree.

Obviously all of the six norms are not equally pertinent in every type of theatrical criticism. The critic must of necessity make a tentative map of his particular problem in order to decide which of the norms are applicable and then proceed to derive or create criteria that are best suited for evaluating those aspects of the play, film, television or radio drama with which he is concerned.

Certain aspects are common to all drama: regardless of the historical age and regardless of the type of play, all drama—with varying degrees of emphasis—is concerned with *doings* involving *characters* with a *theme* emerging from the interaction of the characters and plot against some kind of background.

It is with those varying degrees of emphasis that the differences come in, bringing important distinctions to be observed by the critic. Most important to watch are the differences made by historical period and the

medium of communication. To find out just what these differences are is the student's responsibility to be met while taking courses in theatre, film, television, radio, etc. To make the necessary and sufficient provisions in research to accommodate these differences in the design is the student's responsibility to be met with guidance by his thesis committee or its chairman. Perhaps we will have discharged our responsibility by pointing out that examples of excellent theatrical criticism, in academic circles, are scarce as hen's teeth.

c. Quantitative, qualitative and statistical norms include a variety of models of criteria for critical judgments.

The Carrell and Gormley "Critical Review of the Literature on the Validity and Reliability of the Audiogram"¹⁶ required quantitative norms. So did Irene Cherhavy's "Evaluation of the Iowa Speech Clinic Stutterer's Speech Situation Rating Sheet"; but qualitative factors (such as "self-rating of severity of stuttering") were also involved.¹⁷ When you are browsing around in *Speech Monographs*, notice the variety of sources from which the bases of critical judgment were derived, and the variety of studies in which the critical method is dominant. As examples: Dr. Weinberg's "General Semantics Analysis of the Lysenko Controversy and Its Ideological Foundations" (XXI, No. 3, Aug. 1954, 161); Dr. Cripe's "Critical Analysis and Comparison of Selected 1932 Presidential Campaign Speeches of Herbert Clark Hoover and Franklin Delano Roosevelt" (XXI, No. 3, 1954, 167 f.); Dr. Alogdelis' "Critical Evaluation of Selected Educational Speeches of Nicholas Murray Butler" (XVII, No. 3, Aug. 1950, 227 f.); and Dr. Dugan's ". . . Comparative Study of Selected Theories of Dramaturgy" (XIX, No. 2, June 1952, 137 f.).

Obviously the critic may fraternize with "technical" people, and he may use whatever models he can find as sources from which appropriate criteria may be adapted or created.

Although the formulation of criteria to fit the problem does not complete your design, we decided to classify the planning of how to use the criteria as distinct steps on a par with the other major phases of the method. By structuring the pattern of procedures this way, we gain our desired emphasis on controlling the factors involved in assembling and studying the relevant data.

5. *Controlling the structural analysis and creative synthesis.*

The crucial question is: with what is one in contact? The spectator of a modern painting may believe that he is in contact with the picture while he is actually in contact with the art critic of his favorite journal. . . . *Your sense of the unitary interfunctioning of you and your environment is contact*, and the process of contacting is the forming and sharpening of the figure/ground contrast. . . . "Figure" is the focus of interest—an object, pattern, etc.—with "ground" the setting or context. The interplay between figure and ground is dynamic [else it could not be creative], for the same ground may, with differing interests and

shifts of attention, give rise to different figures. . . . Such phenomena are, of course, “subjective”. . . . The “intellectual” . . . attempts . . . to “be objective” about his personal experience—which largely means to theorize in words about himself and his world. . . . By this very method, he avoids contact with the feeling, the drama, the actual situations. He lives the substitute life of words. . . . When the figure is dull, confused, graceless, lacking in energy (a “weak gestalt”), we may be sure that there is a lack of contact. . . .¹⁸

Excellent criticism requires primary contact with whatever is being criticized; an excellent criticism of most theses approached by the critical method would probably show that the student had not learned how to make and maintain contacts.

Making contacts may be learned by practicing *experimental observing*—a procedure adapted to critical needs from experimental method. Roughly analogous to the experimenter’s “law of the single variable” is the artist’s principle of “one thing at a time.” Make contacts by focusing attention on one thing at a time. “How?” By concentrating. “Concentrate how?”

Place yourself in imagination (or in fact) before a painting.

A crude analogy might be to think of one’s diffuse attentiveness at the start of the figure/ground process as similar to light transmitted through a pane of glass and shining on a relatively large area. No part of the area is more brightly lighted than the rest. Then, if it were possible for the pane of glass gradually to form itself into a lens, the area as a whole would darken while the spot on which the lens was focused would gradually brighten. . . . Where this analogy obviously falls short . . . is that we have hypothesized nothing which would select the particular spot for the lens to focus on or the sharpness of its focus. . . . It is, of course, the relevance of environmental objects to the organism’s needs which determines the figure/ground process.¹⁹

We hope that your eyes are not made of glass; if not, then you have (under your own partial, yet significant, control) a pair of lenses! Look at that painting with them. Observe one “thing” at a time: observe the lines (but let the objects drawn with the lines remain in the background). Observe the *pattern* formed by these lines. Then observe the patterns formed by the empty spaces; by the colors, lights and shadows. “Last of all, look at the story or scene portrayed, for this is where most people begin to look at a painting and *become fixed*.”

If you do as suggested and have liked the painting to start with, you will find that it suddenly begins to swim toward you with a new beauty and fascination. All kinds of new relations among the parts [our bits, threads and chunks of data] suddenly seem “inevitable” or “just right”. . . . This *single, immediate* grasp of the differentiated unity means that you are in contact with the painting.²⁰

Some such procedure may help you control your structural analysis and creative synthesis of films, scripts, speeches . . . whatever object you are going to criticize.

The analysis is a de-structuring process during which you may be able to let the background, setting or context control itself, so to speak, while you allow (*not* “force”) your eyes and ears or other organs of sense to make contacts. Perceive by experimenting (playing around) with various foci of observation as if you were an experimenter with a factorial design. Distinguish pattern properties such as syntax, organization, rhythm, formative qualities of style.

Then reconstruct your perceptions of the analyzed data. Let this process of synthesis be guided by whatever patterns or structures you were able to distinguish by analysis. Allow your various observations to emerge from the object or event into a single perception of whatever parts fit the pattern. For example, your perception of the organization of a speech as a whole is somehow formed as a gestalt of its organized parts. Or you might let the patterns of actors, setting, audience, etc. merge into an “all at once” impression of the whole living play. Dr. McFarland must have done something like this—among several other things—in order to “. . . Discover the Major Weaknesses of 67 Untried Plays, and to Discover if These Weaknesses Formed Characteristic Patterns.”²¹

6. *Evaluating phenomena of Speech by means of criteria.* You remember the emblem of justice? Well, now is the time in your proceedings to take your appropriate criteria in mind, as if you were taking weights into a laboratory, and use them as standards on balance with whatever you have chosen to criticize. Knowing that your qualitative evaluations are determined by procedures analogous to coincidence observations,²² you are going to conduct what Reichenbach calls “mental experiments.”²³ In that internal laboratory of yours, you play around, systematically, with your perceived data and conceived criteria: you weigh in judgment the relative importance of each analyzed part (as a function of the synthesized whole) as you *replicate* the procedures of step 5 above. And you assume not only the role of the judge, but also you take the role of the plaintiff in order to compare that evaluation with the evaluation you infer when you take the role of the defendant. In a similar way you infer and compare the evaluations of the prosecutor and the attorney for the defense. When you have discovered, by these inferences and comparisons, the similarities and differences of interpretation and evaluation, then take the roles of the jury as the final vantage point for your judgment. Remember that you may weigh the parts one at a time, and in any combination—or the phenomenon as a whole, and combinations of phenomena—provided only that the criteria which you put on the other side of that balance are the appropriate standards for each and every weighing.

In order to help yourself reach the required judgments, you may employ hypothetical thinking; e.g., *if* this film had been organized differently, *then*

—What difference would that make? As a means of arranging your evaluations in a priority sequence, plan to borrow the idea of rank order from statistics; but compute rank order correlation only if, by design, you are able to meet all of the requirements of that statistical procedure.

It is by some such procedures of evaluation that Dr. McLeod was able to draw the following conclusion from his "Rhetorical Study of Commonwealth Prime Ministers' Speeches to the United States Congress, 1945-1955": namely, that "the speeches of Churchill, Liaquat Ali and Nehru are superior to those of Attlee and Menzies."²⁴

7. *Drawing conclusions from evaluated data.* The results of your research are before you now as ranked evaluations. To draw the conclusion of your study from them is to synthesize them into a composite judgment. Then you proceed to present this composite judgment as your criticism. Structure it to fit the problem as stated in the beginning; thus your conclusions will answer the questions asked. Once in a decade or two one finds a conclusion made especially clear, accurate and self-sufficient: "Not always were the President's supporting arguments accurate," wrote Earnest Brandenburg after criticizing seventeen of "Franklin D. Roosevelt's International Speeches, 1939-1941."²⁵ "For example, his attitudes and his historical interpretations of neutrality have not been accepted by 'experts' in international law. He was clearly inconsistent and opportunistic in his handling of the 'freedom of the seas' issue." Perhaps you also will find a way to weave the most pertinent criteria into your conclusions.

We have deliberately emphasized the conclusions, but not, we trust, at the expense of a "brief, clean-cut statement of essential facts or points" (i.e., a *précis*), usually called a summary, of the entire study. Following the summary and conclusions, we think you should take advantage of your freedom from the conclusions' restriction by fact, and enjoy the privileges of giving advice in a form most useful for future investigators. If this advice is unmistakably distinguished from the conclusions, probably by a separate section with a suitable heading, then you need not hold yourself down to the usual boredom of recommending further research, especially that kind of obvious toil which you recommend to others because you would not want to do it yourself.

AN EXAMPLE OF THE CRITICAL METHOD

Before we go backstage to "interview" John K. Brilhart, who played the lead in a recent critical study of "Gifford Pinchot as a Conservation Crusader in 1909," let us take a quick look at the mixture of metaphors that we have deliberately perpetrated upon you. We planted research in the field of drama. We treated your mind as a laboratory. Then we took you to court, not only to play the judge but also to take the other parts; gave you, not a script to memorize, but a model brief, and said, "perform

extemporaneously"! Such is our eagerness to make this method come alive for you as it did for "Jack" Brilhart when he did his thesis. The present writer may be able to take you behind the scenes in this case just because he directed the study.

*Questions About
What Was Done*

Why did you take the critical approach, Jack?

Why not?

Did you select your own problem?

Why did you select this particular problem?

Did the statement of the problem give you much trouble?

In what form is your problem stated?

How did you establish the need for your study?

Did the absence of previous research make it difficult to place your study in historical perspective?

Answers and Explanations

Because the critical method—my dominant method—seemed most appropriate to my problem. I was taught not to try fitting problems to methods.

For the same reasons expounded in this chapter: mostly because of self-motivation and dependability of results.

Yes.

Primarily because of my life-long romance with forests, hunting and fishing; also, my interests were growing in public address and persuasion. Once I got into it, I was motivated by the prospect of opening up a new area of research in speech; for conservation speaking—so far as I could determine—had not been studied before.

Insofar as my experience is typical, one starts with a vague confidence but finds himself frustrated by trying to write what he thought was clear but isn't. I began to see daylight when I worked through the limitations to the point of picking the most important year of Pinchot's speaking.

Eight questions, all of which had to be answerable by available means and in terms implied by the way the questions were formulated. My first two or three attempts were not accepted. Close to the way described in step 2 of the pattern of procedures in this chapter except that there was no strictly pertinent research literature to criticize.

Not particularly. One always has some relevant sources to review, and finds it necessary to be critical. Perhaps it would be clearer if I talked about the historical perspective as a function of the procedures included in the design of my thesis: "I did extensive reading . . . in works

Is that what you call a
“chunk” of data?

Speech texts to inter-
views to newspapers to
letters to more inter-
views: Is that what you
mean by “one thing
leads to another”?

by and about Pinchot, about the conservation movement and later conservation development, and in the history of the United States during the twentieth century . . . [including] a college course in recent American History.” During a week-long trip, “a study was made of the Gifford Pinchot Papers in . . . the Library of Congress.” From 3353 boxes of manuscripts and collected files, I selected and examined ninety-four which “seemed pertinent as determined by the index of labels. A file of manuscripts of the speeches made by Pinchot in 1909 was examined in detail. All speeches on conservation and forestry were read, pertinent facts of each were recorded, and then the seven speeches which seemed most representative on the basis of the content and techniques, or seemed unusually important . . . were typed out in full for further analysis.”

Yes; but notice how one thing leads to another. From the Library of Congress, I went to interview Mrs. Gifford Pinchot in person, and, by telephone, I interviewed two of his acquaintances. Then “A limited study was made . . . of newspapers published in the cities where Pinchot delivered his major addresses in 1909.” . . . Later, several letters were written to ask “specific questions regarding the addressee’s relationship to Pinchot in 1909, Pinchot’s speech preparation techniques, his delivery and other pertinent data.” . . . Furthermore, I interviewed four persons who had worked with Mr. Pinchot or had heard him speak.

Yes, essentially so. One doesn’t know what he’s going to find. By keeping his eyes open for leads, and then following these leads by whatever means seem most suitable—like tracing “threads”, so to speak, from one “chunk” to another, and so on—you scout your own journey.

Eventually, I was ready to gather ideas, means of support and adaptation, organization, and

Evaluation by means of weighing with criteria?

style from my analysis of the seven speech texts I had brought back from Washington. "Finally, the speech entitled 'Conservation' . . . was subjected to detailed analysis and evaluation."

Where did these criteria come from?

Yes indeed! I developed six classes of criteria in question form, with a total of twenty-three sub-categories. All of them refer to observables, relationships, and most of them call for answers requiring evaluations of extent or degree. For instance, "How skillful was the speaker's invention?" calls for a critical composite judgment.

This chapter mentions rank order: Did you employ any statistical procedures?

They were "based on classical canons of rhetorical theory" and "developed from principles set forth in *The Art of Good Speech* by McBurney and Wrage and *Speech Criticism* by Thonssen and Baird"—developed "in relation to the actual speeches of Gifford Pinchot and in relation to the premise that a speech event emerges as a function of interacting components": the audiences, speaker, occasion, "and other variables in the unique" speech situation.

Didn't we leave out the controlling of your "structural analysis and creative synthesis"?

Much more historical and survey than statistical. But don't forget that research sampling is properly classified as a statistical procedure. I've already mentioned my sampling *of* sources; of course, I also sampled *from* these sources. By way of descriptive statistics, I organized Pinchot's speeches in 1909 in chronological order and charted the locations, outstanding characteristics of his audience on each occasion, and the title or theme of the speech together with historical and other related events. Then I included a map of the United States showing both the locations of national forests (1909) and the cities where Pinchot spoke that year.

I was hoping you would forget that. Isn't this the most difficult kind of experience to communicate? Beyond what I have already said, I cannot put my finger on specific examples. At

How did you manage to reduce all of that complexity to a conclusion?

the time I did my thesis, neither I nor my advisor had thought our way through these issues in the way you found them discussed in the foregoing pattern of procedures.

The chart and map helped me pull data into focus to the point where certain patterns showed up. "The conclusions of the study emerged from a *summary* of the findings in other chapters."

Did you have fun giving advice after concluding?

Yes, after it was done; no, while I was doing it. You see, we made a big deal out of this part because we wanted to advertise—diplomatically, of course—that we pioneer a little at Penn State, even at the Master's level. So I wrote and re-wrote that section, "Suggestions for Further Research," until I had offered an acceptable *program* of research in conservation speaking, including both survey and movement studies, and studies of individual orators. Not only that: I wrote an appendix on Pinchot and conservation after 1909.

Any regrets?

On the contrary. For me "the writing of a Master's thesis [was] an exceptionally educational experience." I hope you benefit as much as I did.²⁶

Thank you.

POTENTIALITIES AND LIMITATIONS OF THE CRITICAL METHOD

We believe the prerogatives of research may be visualized as a spectrum of preferences. At the extremes of this spectrum the investigator may choose to seek either maximum rigor or else maximum significance—but not both at once; for the conclusions of the most significant research problems in our field are rarely if ever rigorously definitive, and the most definite conclusions are rarely if ever the solutions to our most significant problems.

To do the critical study is to compromise.

Critics tend to compromise in favor of significance at the expense of rigor: Potentially, at least, the critic can evaluate phenomena having a greater scope and complexity than the requirements of quantitative methods usually permit; e.g., the general requirement in statistics of independent observations is restrictive.

Criticism is typically more qualitative than quantitative. (Some people prefer the terminology of subjectivity and objectivity; but even the most objective research is necessarily quite subjective in at least its critical phases). Even so, the critical method tends to limit the rigor of its conclusions. This we have already acknowledged by using a balance in our analogy instead of a set of scales and explaining that not all judgments qualify as measurements.

This limitation may be counterbalanced by the fact that this research method is probably the one most helpful in developing one's ability to criticize constructively in teaching.

EVALUATING RESEARCH CRITICISM

The purpose of this section is to point out certain means of using the critical approach to evaluate research done by the critical method, not only the criticism created by others but your own as well: in short, the criticism of criticism.

Dependability of Results is the compass of an *investigator's* devotion.

Both validity and reliability (i.e. both relevance and repeatability) are essential to dependability. So are the clarity and accuracy of research writing. (In research reports, interesting writing is an unexpected bonus.)

We have emphasized validity because so much of what passes as scholarly, professional and expert criticism is devoted—unconsciously, no doubt—to the slaughter of straw men. Reliably so! The error is not merely repeatable but iniquitous when budding excellence is not recognized but destroyed.

But what of the reliability of criticism? If we interpret this question in the usual way, it calls for a statistical report and refers to the probability that different critics will agree in their independent evaluations of the same phenomenon. Granted that such agreement lends a certain credence to criticism, nevertheless it seems to us that this view of reliability is itself mostly irrelevant to criticism. The more excellent criticism is, the *less* probable it becomes that other critics have agreed. Ditto for the "same" critic at different times: if he is growing he must to some extent disagree with himself from time to time.

It seems necessary to distinguish by specifying: It is the highest possible *reliability of evidence* in criticism—instead of the statistical reliability among critics—which requires our eternal vigilance. We desire neither reliable critics nor reliable criticism in the technical, statistical sense as tested by predictability. Do you know of anything more insulting to say to an artist than to tell him how predictable is his work? And, it is just like his colleagues'!

Yet excellence of criticism may be evaluated by its dependability (i.e. validity, reliability of evidence, clarity and accuracy of style); by authenticity of sources; by originality in design and execution; by vitality (in the

sense of being true to life); by the educational potency of the values communicated.

Perhaps the most basic considerations in designing and doing critical research, as well as evaluating critical writings, are those general considerations that lead us to ask, at every stage: (1) To what extent can the results be applied or used as a basis for further critical research with confidence? What degree of confidence? (2) Can the reader make this judgment from the report itself? Are the limitations of dependability explicit? If not, then to what extent does the author seem to be aware of these difficulties? (3) What are the “loop holes”—if any—that would make further critical research based on this study hazardous?

From here on, it may be more convenient to group the questions as follows:

Critical Research Design

What, precisely, did the critical investigator want to find out?

What need was there for this particular study?

To what extent are the connections made clear among *what* was done, *how* it was done, and *why* it was done this way?

How appropriate were the methods and procedures to the solving of the particular problem as limited?

Data

To what extent were the data derived from the best available (e.g. primary) sources, and by the best available (practical) means?

In cases where graphic devices are used, or needed: How clearly and accurately have *the data* been presented? (Also see clarity and accuracy under WRITING.)

How “correctly” have the data been interpreted?

Results

Just what did the investigator find out? Précis or summary included? How “properly” have the findings been evaluated? Been placed in perspective?

Are the conclusions precisely clear, accurate, and based on *only* data included in the report?

Do the conclusions either solve the problem stated (answer the questions asked) or else explain why not?

Under the circumstances, how well has the author done in providing guidance for future investigators?

Writing

How clearly has the critic communicated?

As judged by historical criticism (see Chapter 4), how accurately has the report been written?

An example of a criticism of criticism was provided by Walter McCas-

lin's M.S. Thesis at The Ohio State University, (1949). He examined 750 critical reviews of selected theatrical critics in the light of certain questions: e.g. "Do these critics disagree and [if so, how] are their differences related" to specified philosophies of acting?²⁷

For further study of using the critical method to evaluate criticism, go after the perspective offered by Dr. Croft's discussion of the historical, evaluative, and creative "Functions of Rhetorical Criticism," (pp. 283-291) in *The Quarterly Journal of Speech*, October, 1956. If you are especially interested in the theatre, film, television and radio, build a practice of reading the professional critics of these areas in *The New York Times*, *Saturday Review*, *Harper's*, etc. and compare what different critics say about the same productions; e.g. the criticisms of "J.B." with criticisms of the critics included.

SUMMARY

If you choose the critical method, you commit yourself to research in pursuit of excellence; for constructive criticism comes only from constructive critics, the ones who destroy only when and what they must in order to make room for creative building. Thus the critic is engaged in more than academic slum clearance; he seeks to produce dependable, trustworthy evaluations. His mission is to help people perceive and interpret and judge for themselves what they might otherwise ignore or misevaluate.

Hence the critic must be a versatile artist in order to educate people while entertaining them: he plays the judge. For the sake of justice, he assumes the various points of view represented in court as he observes, interprets, analyzes and assembles the evidence, and as he places the most reliable evidence on balance against his criteria. All according to careful design: the criteria—to be valid standards of judgment—must be tailored from suitable norms or principles to fit the anatomy of the case; the weighing—to be dependable—must be controlled by a plan designed to guarantee only appropriate comparisons throughout. All very experimental: the disposition to *test* ideas, the willingness to consider different points of view, the playful curiosity disciplined by passionate respect for facts, the eagerness to discover. When the ability to synthesize is used to draw conclusions, you judge. What you judge is thereby criticized; and criticism itself may be criticized, including yours. Let us now deliver you to the ones who will judge your criticism with the wish that each of them turns out to be an able critic: a good friend.

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NOTES

1. University of Wisconsin. See *Speech Monographs*, XVIII, No. 3, Aug. 1951, 209.
2. Ph.D. Dissertation, University of Minnesota. For a summary description of Dr. Hansen's combination of rhetorical and experimental analysis, see *Speech Monographs*, XXI, No. 3, Aug. 1954, 187 f.
3. Ph.D. Dissertation, The Ohio State University. *Speech Monographs*, XVII, Aug. 1950, 235 f.
4. *Speech Monographs*, XXV, No. 2, June, 1958, 99 f. Italics not in the original.
5. M.A. Thesis, University of Minnesota, 1949. *Speech Monographs*, XVII, No. 3, Aug. 1950, 265.
6. *Speech Monographs*, XXIV, No. 2, June 1957, 120 f.
7. *Speech Monographs*, XX, No. 3, Aug. 1953, 173 f.
8. *Speech Monographs*, XXV, No. 2, June 1958, 113 f.
9. You will probably encounter the opinion that our crude balance can and should be equipped with a pointer and a scale to be observed by the coincidence technique to produce numeric values by *measurements*, values to be manipu-

lated statistically as *interval* data. We hold the different opinion primarily for this reason: "Even if qualitative observations are ranked [e.g., a value of 3 may be assigned to the letter grade 'A'], arithmetic operations on the ranks are meaningless for describing the relations among them. . . . It may be useful to rank attitudes and attach numbers to them, but the resulting numbers cannot be interpreted as quantities." W. Allen Wallis and Harry V. Roberts, *Statistics: A New Approach* (Glencoe, Illinois: The Free Press, 1956), pp. 149 f. Most speech criticisms are, at best, qualitative observations.

10. See Lester Thonssen and A. Craig Baird, *Speech Criticism: The Development of Standards for Rhetorical Appraisal* (New York: Ronald Press, 1948). Note the decline of memory, pp. 80 f.

11. See *Speech Monographs*, XXI, No. 1, March 1954, 64-72. Even less enlightening than a mere listing of canons, rather than an explicit statement of criteria, is the phrase (let it remain anonymous): ". . . in the light of Aristotelian principles." This phrase is all too typical of what sometimes passes for research design in critical work in speech. Can you imagine a competent experimenter publishing a report in which he said only that his conclusions were derived in the light of statistical principles!

12. M.A. Thesis, Temple University, 1951. *Speech Monographs*, XIX, No. 3, Aug. 1952, 165. For an explanation of these proofs, see Thonssen and Baird, *Ibid.*

13. "A Rhetorical Analysis of the National Radio Broadcasts of Senator Huey P. Long," *Speech Monographs*, XXI, No. 3, Aug. 1954, 163 f.

14. *The Poetics of Aristotle*, trans. S. H. Butcher (London: MacMillan and Co., Ltd., 1911).

15. This is the only unity discussed by Aristotle. Writers of the Renaissance are responsible for adding unity of place and time.

16. *Speech Monographs*, XIII, 1946, 66-80.

17. *Speech Monographs*, XVII, No. 3, Aug. 1950, 288.

18. Frederick S. Perls, Ralph F. Hefferline and Paul Goodman, *Gestalt Therapy: Excitement and Growth in the Human Personality* (New York: Julian Press, 1951), pp. viii f; 73; 25; 105; 232.

19. *Ibid.*, pp. 56 f. This basic function of your needs helps explain our emphasis on selecting your own problem with concern for your motivation.

20. *Ibid.*, pp. 65 f.

21. *Speech Monographs*, XIX, No. 2, June 1952, 141.

22. May we assume that you have studied at least the pertinent parts of *The Scientist in Action* by William H. George? Most of our former students would recommend it to you as a most helpful source.

23. You will therefore want to study a classic example in Hans Reichenbach's account of Einstein's mental experimenting in his Chapter 5, *From Copernicus to Einstein* (New York: Philosophical Library, Inc., 1942).

24. *Speech Monographs*, XXV, No. 2, June 1958, 109 f.

25. Ph.D. Dissertation, The State University of Iowa, 1948. *Speech Monographs*, XVI, Aug. 1949, 21-40.

26. It may interest you to know that Mr. Brilhart's graduate committee included a political scientist, Dr. M. Nelson McGeary, whose special knowledge and expert assistance were most helpful. This committee—every member a critic, of course—was unanimous not only in passing Mr. Brilhart for the M.A. degree but also in commending him on his research. We regret that graduate theses are rarely published except in summary, for nothing published would have served our purpose here nearly as well as Mr. Brilhart's theses. However, you can obtain this thesis on inter-library loan from The Pattee Library of The Pennsylvania State University, University Park, Pennsylvania.

27. See *Speech Monographs*, XVII, No. 3, Aug. 1950, 274.

CHAPTER 6

The Original Play

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INTRODUCTION

Creative theses in playwriting, design, and acting fulfilling the requirements for the M.A., M.F.A., and Ph.D. degrees have become increasingly common during the past decade. And the general subject of creativity in the theatre arts and the question of their proper place in the academic program has been mulled over by theatre faculties everywhere and, with perennial regularity, by committees of the AETA.

In general the present discussion is directed toward the master's program. To my knowledge only two institutions have accepted creative theses at the doctoral level, but anyone who wishes to extend the applicability of the following pages to the higher level of graduate work can, I believe, accomplish that projection on his own. The bulk of the chapter is directed to both the M.A. and M.F.A. programs, however the introductory pages bear particular pertinence to the M.A. Creative work is readily acceptable to the fine arts college, whereas it may be greeted with some skepticism by the graduate school of an arts college.

In the interests of maintaining a clear focus, attention is centered on writing for the legitimate theatre, however most of the principles involved, with the obvious readjustments to the medium, should be applicable to the television theatre.

DEFINITION

Although any thesis demands creative work, "creative" is used here to distinguish the thesis which presents original work in playwriting. A discussion of the directing, designing or acting thesis will be considered in Chapter 7.

* The writer wishes to express his thanks to his colleagues at Indiana who have read this chapter and given him the benefit of their views and to his many colleagues throughout the country who have willingly contributed their ideas.

PROBLEMS AND OPPORTUNITIES

The student who proposes to complete his graduate studies with a creative thesis faces problems which his fellow students, pursuing more conventional research paths, never encounter.

First, he is embarking on a course neither wholly nor universally approved by graduate deans, graduate studies committees, or heads of speech and theatre departments. Second, his path is, to say the least, uncharted. Guide posts and markers are so nebulous as to seem nonexistent, and the final measures of reckoning are often equally ambiguous both for him and for his committee.

Many institutions insist that their M.A. and Ph.D. degrees signify the successful completion of a research study of a specific kind and of a certain magnitude. With that there can be no quarrel. Just as one cannot quarrel with the various state licenses that signify the successful completion of the examinations in law or medicine. One must grant that traditionally the masters essay and the doctoral dissertation have followed fairly conventional research patterns. It is not then unreasonable for the graduate school of a university to hold to this standard. The graduate degree means research. Not that the dean or his faculty disapproves of creative work. They may be quite willing to grant a certificate of accomplishment for such work, but their M.A. and Ph.D. degrees just mean something else. They feel that in justice to their prospective customers, the employers who are going to hire their graduates, and to their own self-esteem they must maintain a certain prescribed quality.

If this view is rigidly held, the creatively minded graduate student must find another institution or another thesis project. Normally he is in no position to dispute the point although he need not be unaware of the possible arguments.

Unfortunately the most common defense of the creative thesis is the weakest: that it takes as much time, work, energy, etc. as does the research project. No self-respecting institution is distributing graduate degrees as a reward for so many hours of labor. To say that the original play requires just as severe and time-consuming mental application as does, for example, an historical, experimental, or critical study is beside the point. The crucial question is: does the thesis maintain the dimensions of quality, quantity, and kind which the institution has established as its standard?

Except where there is a strict insistence, formal or informal, on the research study, the creative thesis can be convincingly defended. Certainly the original play, or the adaptation, can make a genuine contribution to knowledge, can add substantially to our knowledge of a particular field, and certainly such creative studies do contribute to the education of the student and do require independence of operation. In fact, on this basis, one can make a stronger case for the creative project than for many conventional research studies.

Take the original play, for example. What contribution could be of greater significance than an addition, however small, to our dramatic literature, or, more to the point, a new playwright added to the rapidly dwindling ranks of that profession? What theatrical study requires a more thorough knowledge of all aspects of theatre and theatrical production than does the writing of a play? Certainly no other project requires more individualized and independent application.

To carry this a bit further; if a thesis pretends to broaden our horizon of knowledge, may not the playwright's exposition of a segment of the contemporary social scene or the vivification of some historical event or character provide considerably more enlightenment than the most meticulous uncovering of hidden facts? Of course, this whole question is not new, and the advocates of either side can find illustrious support. Plato would banish the poet from his ideal city and advise us to trust the historians' facts in preference to the poets' "frenzied imitations." Aristotle, on the other hand, found the historian a dull chronicler. Only the poet could give meaning and significance to the historian's chronicles. Plato, as a graduate dean, would probably rule out the creative thesis. Aristotle would favor it.

But there is greater pertinence in more recent views. The general trend in graduate studies among the other academic disciplines has in a way created a favorable climate for the introduction of the creative thesis in theatre studies, and has led many institutions at least to the brink of admitting such theses to their programs. The theses in the sciences, for example—and these at the moment tend to set the standard in most graduate schools—have taken on a more creative coloring in the past few years. Creative thinking, the art, if you will, of imaginative projection, to perceive undiscovered relationships and connections, is regarded as a prime quality for the graduate student in physics, chemistry, mathematics, or biology. And, in general, his thesis study is expected to demonstrate this turn of mind. Certainly the traditional conception of the thesis as an antiquarian's exercise, the digging up of bones from one grave-yard and burying them in another, as Professor Frank Dobie has expressed it, has been radically reappraised in the past few years.

Two arguments have special pertinence for the theatre faculty although they may not carry equal force with their graduate colleagues: the need for more playwrights and the need for more qualified teachers of playwriting. Very few playwrights have ever arrived at any professional maturity without an apprenticeship period with some theatrical producing organization. This apprenticeship is no longer possible in the commercial theatre; while the university theatre is eminently situated to provide such laboratory training. Practically all universities include playwriting courses among their theatre offerings. Where better to recruit the teachers for these courses than from the ranks of those who have completed advanced degrees with playwriting theses. Admittedly both these views have a stronger fascination for the theatre departments than they have for the graduate deans.

Perhaps the strongest defense of the creative thesis rests on its personalized and independent nature just as the basic pedagogical support of the thesis as an essential part of any graduate program rests on the notion that no amount of academic course work can substitute for the self discipline of an independent study. At some period in his graduate career the student must be forced to operate entirely, or almost entirely, on his own. Certainly this demand for independence of operation is more adequately satisfied in theatre studies with the creative thesis than with any other thesis project.

Clearly enough this peculiar independence demanded in composing the play, for example, is at the same time the greatest handicap to the satisfactory completion of the creative thesis. And the problems inherent in the project plague the faculty adviser as well as the student. The professor who guides the program faces many perplexities. What reasonable criteria can he apply to the completed product when he makes his final and inevitable judgment? What precise and helpful suggestions can he provide for the work in progress? With the conventional research thesis, the professor has a much easier task. When he approves the general area of study, he is fairly certain of his judgment. When he weighs the proposed hypothesis, his experience in the field gives him good grounds for speculation on its reasonableness or on the student's chance of success. While the study is in progress, his knowledge of the scientific method, to put it in its broadest terms, permits him a fairly easy evaluation of the quantity and quality of the evidence in hand and an appraisal of its use. And finally, he can judge with reasonable accuracy whether or not the hypothesis has been proved, and whether the student has arrived at his intended goal.

With the original play all of this becomes much more complicated. At the initial stage the adviser can attempt to judge whether or not the proposed story, characters, or dramatic situation may conceivably be developed into a play, but he must admit of considerable fallibility on this score. He well knows that a substantial part of our established dramatic literature might have received an unfavorable judgment at this initial stage and on this basis. In more cases than not it is the dramatist's treatment of the story, characters, or situation that makes the play. Shakespeare is, of course, the classic example.

PERSONAL CHARACTERISTICS

Before the project is begun the adviser must pass judgment on the creative potential and capability of the candidate. Here, I feel, he must have tangible evidence on which to judge. The student must have demonstrated his dramatic writing ability in a playwriting course if he proposes to undertake a creative thesis. A grade transcript indicating a passing mark in such courses would normally not be regarded as sufficient evidence. I believe any adviser or graduate committee would want first-hand knowl-

edge of high proficiency and potential. Formal course training may not be required, if the student can provide an informal demonstration of his ability.

PLAYWRITING

The remarks that follow are not intended to set a formula but rather to report the practice in various institutions together with some speculations on possible procedures. Specific requirements for the play as a creative thesis vary considerably from one institution to another. And although it may not be necessary to explore the various combinations of requirements, it is important to be aware of the several possible categories in which requirements differ.

First, (a) the play may be an original document, or, (b) an adaptation from a novel or short story.

Second, (a) the play script may be the final thesis, or (b) a production of the play, directed either by the playwright or someone else, may be necessary to complete the project.

Third, the play itself may be subject to varying demands. (a) A satisfactory creative document of any type may be acceptable. (b) The play must demonstrate a particular technique of playwriting. For example, illustrate expressionistic style, presentational manner, or semi-documentary treatment, or one of a number of other dramaturgical methods. (c) The subject matter of the play must deal with some historical situation or character, some particular social situation or theme. For example, a play set in a particular community during the Revolutionary War or say the Civil War; a play on Napoleon or Abraham Lincoln; a play dealing with the life of the miners in West Virginia; with the anti-intellectualism sentiment in present day suburbia; with the doctors and socialized medicine.

Almost any combination of these categories makes a feasible basis for creative thesis requirements. We may as well, as indeed we must, leave the combination to the discretion of each institution, but the categories themselves do demand some exploration. Perhaps each of the subsequent comments requires an "it seems to me" qualification. Let that be assumed in each instance thus sparing us at least the annoyance of repeating that equivocating academic dodge.

ORIGINAL PLAY OR ADAPTATION

With the play that sprouts from the playwright's own imagination and is nurtured by his own writing ability, whatever its quality, it is at least his own and represents an independent enterprise. With the adaptation how much belongs to the novelist or short story writer is often difficult to determine. And yet there are many adaptations that are strikingly original in their concept and treatment and many so-called original plays that may

be little more than renderings or reportings of real life events and characters. The distinctions between the two in terms of originality and independence of operation—and both qualities are requisites for the creative thesis—are not always easily discernible.

If the thesis bound playwright attempts an adaptation, he is expected to do much more than cut and paste up the novelist's page onto the conventional dramatist's page. Adaptation demands more than slavish translation of novelist's language into playwright's language. As Brooks Atkinson said in his article "‘Teahouse’ Rebuilt" (*New York Times*, September 12, 1954), "The playwright's problem is not to make a faithful rendering of the novel. His job is to write a play that will stand on its own feet in the theatre as dramatic entertainment." The novel may provide the basic material, the starting point, as Vern Sneider's novel did for the stage "Teahouse," but it was up to John Patrick "working on it with fresh relish" to make a "fresh piece of writing out of it." The adaptation must appear not only in the garments of the stage, but it must acquire a new body and soul which are distinctly its own even though it may still bear a family resemblance to its progenitors.

The student who trusts his own industry but is skeptical of his writing or creative ability may wish to attempt an adaptation on the theory that diligence will compensate for lack of dramaturgical inventiveness. This student should not be encouraged. If he starts the project, puts in a half year of painstaking labor, produces a manuscript which provides a satisfactory stage reading of the novel, a sympathetic committee might be disposed to reward him with a degree. Sheer devotion, and conscientious application, however, do not make a play, or a thesis, and the student whose inclination and talent permit only workmanlike and pedestrian results should never begin a creative thesis.

The adaptation must be original in the sense that it represents the first time this particular novel or story has been dramatized. In some few instances the student might be permitted to make a second attempt at adaptation when the first attempt is antiquated or was ridiculously inadequate, but this should be the rare exception. The exercise of the creative function is less clearly defined when confused by critical analysis of a previous treatment of the same material.

Some novels and short stories clearly indicate that their authors had dramatizations in mind when they composed their first documents. Steinbeck must have had one eye on the stage when he wrote *Of Mice and Men*, and at least took occasional side glances when writing *Sweet Thursday*. Adaptation of such play-like novels should not be permitted. Too much of the job has already been done.

Frequently the would-be adapter is misled in his appraisal of the stage potential of a novel. Incidents that appear strikingly dramatic on the printed page may not be amenable to an equally vivid rendering on the stage. Characters who fascinate us when we see them exposed in all their

psychological complexity by the probing pen of an expert novelist may be inadequately realized on the stage when there is insufficient appropriate illustrative action to give them their full stature. Of course, the reverse of this is also true. Stage life can often give characters and situations a vitality and significance which they never possessed in their literary incarnation.

The adapter faces other problems. He must not submit to the easy temptation to lean too heavily on the novel. If he tries to take in the full narrative line of the original, he will probably end up with a multiple scene play that sweeps over too many places and too much time. Either that or he will produce long passages of exposition describing the unacted incidents. If he tries to write into the dialogue and stage directions all the psychological complexities of character instead of relying on the power of the living actor, he fails to recognize the essential and peculiar nature of his medium. As indicated earlier, the transformation is successful only if the new document can stand on its own as a play. To get halfway across the bridge from novel to play is to get nowhere. Interesting as it may be to hear a novel spoken by a group of actors, this does not make it a play.

Chances are that the student who submits a play has hopes of future productions of his script. If the adapter has this in mind he should make some arrangements with the original author and/or the copyright owner(s) before he begins his dramatization. With any literary document in the public domain (normally, older than fifty-six years) he may proceed without anyone's permission.

Whether the playwright gets his first impetus from a real life situation, out of his own imaginative storehouse, or from a novel or short story is relatively unimportant. It is important that the final product stand as a distinctively dramatic incarnation evolved primarily from the creative touch that the playwright has put upon it. Anything less than this is unacceptable.

Manuscript or Production. Some institutions insist that the play be produced before the thesis requirement is fulfilled. Others accept the play manuscript as sufficient. In either case the play will be judged not as a literary document but as a dramatic script whose mature growth is not attained until it appears in the full clothing of the stage.

A play is always susceptible to two categories of appraisal. It may be examined in terms of literary criticism or in terms of theatre aesthetics. Simply stated, it may be judged by how well it reads or how well it plays. The literary critic may evaluate the skill and correctness of the writing. He may determine how effectively the playwright's language explores the theme, develops the characters, how forcefully and vividly his phrases and sentences propel the dramatic action. The entire corpus of past and current literary criticism and dramatic literature is at his disposal. From these he can fashion his tools and discover his points of attack. But with all good intent and skill he may still fail to render an adequate or correct judgment. Certainly he will fail if he refuses to recognize the pertinence of the play

on the stage performed by living actors. Any play must appear for this last judgment before its true value can be ascertained. As kingly as the English may appear on the printed page, if it comes unnaturally to the lips of the actor, the dramatist has missed his mark. He has missed if he has ignored or disallowed any of the special provocative powers of the stage. To mention just a few of these: the power of the actor to inflect, color, and indelibly press upon the audience the precise intellectual and emotional flavor of any word or phrase. The power of the actor's hands, face, walk, bodily attitudes, etc., to render dramatic meanings more sharply and immediately than words could ever do. The power of stage silence, dramatic pauses if you wish, action unaccompanied by words. More often than not moments of highest dramatic intensity use language only as a kind of corroborative supplement to physical action. In a way all of these peculiar capacities of the stage draw their incredible power from the simple phenomenon of people in action parading themselves before us. When a single character walks on the stage, we immediately begin to give him a full flesh-and-blood existence. We speculate on his relationship to the environment in which he appears. When he is joined by another, we build a story around the two; we invent an emotional climate for their coexistence. We anticipate a scene of violence, of contrition, of love. In other words, just given the accidental and unpremeditated hints of a particular place and a couple of characters wandering about in this place, the audience begins to contrive a kind of drama. Now when these hints of word and deed are molded by the playwright into a significant dramatic demonstration of men in action, using the full facilities of both speech and movement and with each modified to the demands and limitations of the other, then, and only then, does one achieve a proper play.

This point need not be labored with theatre students and teachers. All agree that dramatic literature reaches its full fruition only when revealed on the stage. Often we have chastised our colleagues in the English departments because they have read their Shakespeare and Shaw without realizing that they were more truly our (the theatre student's) Shakespeare and Shaw. Fortunately this chastisement has produced results. Dramatic literature appears more abundantly in theatre curricula, and the English professors have become more theatre-minded.

But although there is general agreement to the principle that the play manuscript is a kind of skeletal framework to be filled in and painted by the actor, director, and designer, many schools do not require that the thesis play be submitted to this test. To support their position they hold (1) that the writing of an acceptable play is sufficient grounds for awarding the degree, (2) that playwriting represents the special talent of this student; he should not be penalized for his inadequacies as a director or designer.

These are defensible views, but if the play goes unproduced, the adviser is obliged to project the play onto a stage in his imagination, to make some

feeble stab at judging it in terms of theatre aesthetics. This is not an easy task. The literary values of a new document can be more clearly discerned than can the stage values. The literary element realizes itself when it reaches the reader, the theatre element is unfulfilled without benefit of actor and stage. The adviser has of course his knowledge of other plays and other productions to draw upon, but the peculiar complex of any given set of characters, in a given situation and at a given time is so unique as to be rarely, if ever, duplicated. No matter what wealth of experience the adviser has to draw upon or what facility he has for imaginative projection, he cannot sound his judgments with clarity and certainty.

Broadway play production illustrates the fallibility of the best theatrical judgments. We do not refer to the absurd instances, the puerile patch-works that get on the boards because some Wall Street rookie gets bored with domestic life in the suburbs, or some cousin of a cousin of a cousin has a dramatic flare that needs only the bright lights of a marquee to send it flaming to Hollywood. Producers with long lists of past successes do not normally stake their own money on a new play if it has only the recommendation of their own judgment to support it. They approach each new production with extreme trepidation, only mildly relieved if a long try-out period is possible, if the playwright is an old hand or an established play doctor is in attendance, and if the director, designer, and actors are all of pretested quality.

As someone has said, "plays are not written; they're rewritten." If Broadway producers were deprived of this period of rewriting during the out-of-town tryout runs with experts on hand to do the remodelling, if they were compelled to depend solely on their judgment of the manuscript as it came from the playwright's typewriter, few would dare to take the risk. Granted the Broadway producer is trying to do more than bring off an effective dramatic piece, usually he is hoping to contrive a "hit show." But even in terms of the first level, an effective drama, predictability is extremely hazardous.

The committee or adviser, then, faces a treacherous decision in judging the unproduced thesis play. At the same time the student is deprived of the opportunity to rework his play during a rehearsal period, to exercise his art and craft in the mill of the theatre.

If the new play can be produced as part of the thesis program, the adviser has more tangible and significant evidence on which to base his final judgment and the student pursues his task under more appropriate theatrical conditions. Although it is probably better to let the writer direct his own play, to make the staging the final part of the thesis requirement, local circumstances and inclination of the department may place the production in the hands of another graduate student who puts on the play as part of his work in an advanced directing class.

The thesis play need not get the full theatrical treatment of complete setting, lighting, and costuming. These elements are fairly susceptible to

imaginative projection. It should, however, be directed and acted to the fullest potential of the script and before an audience. The department may not wish to open its thesis productions to the general public, but even if attendance is restricted in some fashion, the play should be given a chance to work its theatrical magic upon a group of spectators. This is the only appropriate final test of any play.

The Play as a Dramaturgical or Subject Matter Exercise. As already noted, many institutions feel the writing of a play is not commensurate with other thesis programs. They are willing to accept the play only if it also demonstrates the application of conventional research procedures or reasonable facsimiles thereto. If in the writing of the play the student can demonstrate that he has explored the literature on, and extracted the essence of some particular dramaturgical technique, or has done a comparable research job on some specific subject matter, he more clearly approximates the complexion of the graduate student in other disciplines. It is only fair to say, however, that some departments have adopted this attitude toward the thesis play from their own convictions and not from any pressure from a graduate school to make their thesis pattern conform. They hold that academic discipline demands that the student be intelligible and articulate in his chosen area and about the specific material with which he is dealing, that he be conscious of what he is doing and what he has done, that only in this way does he stand a chance of advancing as a professional playwright, only in this way does he establish a firm basis for his craft. The "one-shot" playwright who, in the heat of a hypnotic trance, pours out a rhapsodic drama is thus disqualified from the academic ranks.

This approach, regarding the play as an exercise, can be applied either to the form or the content, conceivably on some occasions to both. In a way, too, this approach can apply even without any elaborate specific attention to either content or form *per se*. If one accepts the notion that a play is a kind of problem solving document, as any conventional thesis is, then it fits the research category without any external paraphernalia. As Brooks Atkinson put it in his piece on Robert Ardrey (*New York Times*, October 24, 1954), "Writing is basically an attempt to solve a problem." But for those who are disinclined to adopt this attitude, feeling perhaps that such a view limits the scope of the drama to the thesis or idea play—an attitude which this writer does not share—let us proceed to explore the possibilities in pointing the thesis play specifically toward form or content.

The student who aspires to learn playwriting must discover the nature of his art and craft, the limitations and the potentialities of his medium. From a wide reading of plays, of general literature and philosophy, and of dramatic and theatrical criticism, he will learn that a play reflects an attitude toward life cast in a specific theatrical form. It may toll the mournful bell of tragic action sounding the tones of great moment of stirring and inescapable consequence. It may tinkle with the sharp, erratic, and playful tones of farce, or with the equally erratic, raucous, and inconse-

quential tones of melodrama. Or it may ring with fair regularity: solemnly and low with the emotional timbre of the serious play or with the upward lilt, provoking the "thoughtful laughter" of comedy. In another frame of reference, the playwright may favor the clear, direct, and articulate refinements of classicism; the robust, highly colored, grandiose embellishments of romanticism; the photographic, probing, documentary-like selections of realism; the dark, ugly, shady mirror meticulousity of naturalism. He may see life as a series of impressionistic vignettes, as exaggerated non-objective forms which support an expressionistic idea.

Whatever his turn of mind, when he translates these attitudes to dramatic and theatrical form, he has many paths from which to choose. He may openly adopt all the accoutrements of the stage, strike for the validity and truth of theatre life *per se*, reject all practices of artful deception and give us a presentational drama. On the other hand, he may compel us to suspend our awareness of the theatrical environment, persuade us that we are eaves-dropping through the fourth wall, and force us to a relatively life-like emotional identification with the action and characters we observe and thus provide a representational play. Within both these broad attitudes toward the theatre, and with varying mixtures of the two, many more specific theatrical and dramaturgical devices may be employed. It is assumed that this exploration will be more extensively pursued by student and teacher.

The playwright may compose for the traditional proscenium arch theatre, for the platform stage which extends into the audience, or for a version of arena, theatre-in-the-round, or flexible stage. He may write for a bare stage or for one fully dressed with all possible scenic adornments, for cut-down skeletal, or projected scenery. He may be drawn to explore the vertical dimension of the stage space, constructing action to evolve on various levels above the stage floor. Modern abstract painting may lead him to examine the stage possibilities of non-objective forms, characters, and action. The experimental playwright may expand his normal province to include varying combinations of music, dance, and choral speaking. He may employ movie projections to supplement and carry forward his dramatic action. His characters and action may be molded into the strict framework of the well-made play or be revealed in the loose panoramic pattern of the multiple scene drama, or fashioned to fit a multiple place simultaneous setting. He may adopt the guise of playwright-reporter with a documentary-like treatment of his subject. To escape the conventional theatre, his play may be designed for the chancel of a church, for the steps of the cathedral, for the lecture hall, or for the living room. Or to carry this a bit further, and here we move toward content and subject matter, he may attempt the symphonic drama form of Paul Green, exploring in pageant-like fashion the story of a particular region. Or as the French have done, dramatize the life of a building. At Avignon one can sit in front of the Palais des Papes and with the stimulation of narrative,

music, lights, and sound effects follow the dramatic history of that magnificent structure. Similar theatrical treatment is given to the gardens and palace at Versailles.

Certainly it is a legitimate *modus operandi* for the student playwright to demonstrate his command and understanding of a specific attitude and methodology in his thesis play. If this is established as his goal, his thesis problem as it were, the basis for final evaluation becomes more sharply defined. The adviser and student can focus their criticisms and questions more clearly both at the end and during the process of composition.

To divorce content from form is an infelicitous separation. In the drama as in any art the separation occurs only in the mind of the critic or the craftsman. For the present purposes, then, such division is appropriate only if it serves our understanding and if the would-be playwright appreciates the ultimate cohesion of content and form.

If the thesis playwright chooses to regard his play as an exercise in the dramatic rendering of a specific subject, he is not automatically disqualified from the exercises in technique discussed above, assuming that the two be mutually compatible. Such combinations, however, are not subject to general comment; each case provokes its own evaluation. The following remarks, then, are directed to the play as a document for revealing particular scenes and characters in our social landscape, both current and historic.

When the student approaches the play from this side of the fence, he will, in the initial stages, be more historian, sociologist, anthropologist, and biographer than playwright. And the work he does in digging up the ground may provide material that could conceivably be applied to thesis credit in one of the other academic disciplines. Admittedly this preliminary research may give him a favorable protective coloring, identifying him with his graduate fellow, and thus encouraging the graduate faculty to regard him sympathetically. Let him not be ungracious in this happy climate, but he must not be so overpowered by this approval as to allow his preliminary pedestrianism to carry over to the writing of his play. He has two diverse tasks each demanding different and often antagonistic frames of mind. At the first moment he must be diligent, painstaking, and thorough in the examination of all facts, figures, and documents relating to his chosen subject. At the second moment the intrinsic worth of all these factual items diminishes as they become blocks of raw material waiting to be chiseled and assembled in the creative imagination of the playwright, and finally placed in their proper pattern. As with the adaptation, the final play must stand or fall with the weight of its own dramatic worth. Whatever support the basic material may provide as scaffolding when the building is going up, this support is torn away when the structure is completed.

With this approach to the play the student may, as in the adaptation, be tempted to lean too heavily on the original and not effect sufficient dramatic transformation or concentration. The full panorama of a man's

life or of an historical incident will normally require considerable compression to make it suitable for the stage. At the same time the playwright cannot completely escape the obligation of authenticity. He cannot distort and rearrange with total disregard for fact. His audience will catch him up. No rule of thumb can answer this question in every instance, but fortunately our literary and stage custom permits considerable freedom with admittedly fictionalized biography or history. First of all the playwright should be clear in his mind and clearly indicate what kind of a document he is writing. Second, he had better discard the subject which would be painfully violated if properly rendered in dramatic form. The obligation to compose a suitable dramatization must always take precedence (except perhaps on a commemorative occasion) over the demands for historical accuracy. Again, the play must finally stand on its own merits.

What subjects are suitable to this approach? If the possibilities appeared numerous in the previous section, here they are literally endless. The world is our oyster. Each page of the history of man reveals the striking portrait of some hero or villain, the vivid story of some human conflict. In the broadest sense, of course, all plays derive from the stuff of real life, but here we are speaking of the adoption of a specific segment of social phenomena. Several general regions of human behavior lend themselves to this approach. The simplest to describe is that in which the playwright undertakes to dramatize the life of an historical personage. The cradle to grave journey of any man is in a sense a dramatic expedition, but the playwright will normally choose a figure who has significant stature in some realm of human conduct. Contemporary figures and those from the recent past are not usually amenable to the dramatist's magic. His perspective is not sufficiently clear to isolate the dramatic moments of brightest quality, and the audience may be unable to disassociate the stage figure from the real-life image still remaining in their consciousness.

Instead of selecting a single historical personage, the playwright may isolate some vivid sequence of action in which the course of human affairs was subjected to a critical bombardment. The dramatic stories of national and racial struggles, of single men and groups of men combatting social, political, and economic oppression, of the disruptions, and maladjustments provoked by social revolution and evolution, all of these are fertile ground to be turned up and cultivated by the dramatist. Here he can draw relatively nearer to the contemporary scene than he could in the biographical treatment. What he digs up, what he cultivates is of greater importance than the natural topography of the field as described by the historian. The dramatic significance, the meaning which he draws from the real-life events stands above their uninterpreted factual existence.

Given the same social panorama, the dramatist may select to explore themes, ideas, causes, motivations rather than acts. To be sure, the initial stimulation probably depended on some striking sequence of human actions, but then the playwright's fascination shifted to the reason, the

cause, or the principle. And from that point he proceeds to select those significant illustrative acts which would aid a dramatic rendering of his theme. With this approach, the compulsion to pursue the meaning behind, to distill the essence of any social phenomenon, the playwright may range freely over all social experience, past and present. He may probe the abolitionist, the woman suffragist, the prohibitionist, the capitalist, the communist, the isolationist. Any of the shibboleths to which man has been subjected are his meat. Not that the dramatist must be an iconoclast, although this may come easier to him. His drama may illustrate, for example, the salutary results of the patriotic fervor of our founding fathers, of devotion to the cause of desegregation, of loyalty to the principles of democracy.

Any theatre student can supply his own list of plays which, if they did not literally follow this course in the dramatist's writing, at least illustrate a conspicuous dependence on subject matter. The following have furnished the raw material for some recent plays: Thomas Jefferson, Queen Elizabeth, Mary of Scotland, Galileo, Lincoln, Washington at Valley Forge, World War I, World War II, witchcraft in Salem, the Sacco-Vanzetti case, congressional intrigues, political campaigning, academic freedom, navy justice, the medical profession, psychiatry, juvenile delinquency, boy's school and homosexuality, share-croppers in the South, Military Government in Okinawa. The play titles and authors will immediately come to the mind of any student of the modern theatre, in some cases more than one title for each subject.

For the playwright who would start his writing from the impetus of a chosen subject, two fairly clear precautions should be noted. He must deal only in those areas where his knowledge is or can be thorough and accurate. He should not attempt to dramatize materials that have already been shaped into a play—this is, of course, generally true for any thesis—unless his treatment is to be distinctively different from that already done.

The Final Document. No secret formulas for writing a play, no "how to do" recipes are to be included here, even if such were accessible or conceivable. It is assumed that the student is already familiar with the many helpful books on playwriting (some are listed at the end of this chapter) and that he has already had a few turns around the track in practicing his craft. He knows the principal parts of a play as Aristotle saw them: plot, character, diction, thought, melody, and spectacle. He understands and appreciates the need for illustrative action, for emotional investment, for holding situations for their full value, for comprehension and compactness, for exposition to be incorporated in the action, for suspense, for climactic development, for reversals, for the obligatory scene, for individualized and plausible characters, for highly charged entrances and exits, for motivated action, for verisimilitude, for dialogue that moves the play forward. He knows that actions speak louder than words. He knows that a probable impossibility is better than an improbable possibility. Or if this Aristotlean

locution is confusing, he can follow Mark Twain's version of the same idea: "Truth is stranger than fiction, for fiction is obliged to stick to probability and Truth ain't." Each of the above notions is susceptible to a full discourse. The student may not be required to supply the discourse, but the extension and ramification of each of these ideas should be firmly imbedded in the mind that directs the hand to the manuscript page.

Guidance by Your Adviser. If the adviser participates too actively, functions as a kind of play doctor, the end product may turn out to be a collaboration rather than an independent creation. He can, to be sure, point out flaws in the dramatic development, in the employment of illustrative action, in the drawing of character, in stilted and artificial dialogue, but mainly, he must point to rather than try to correct. He may suggest possibilities for change but he must not impose his views dictatorially. Remedies for weaknesses must boil out of the playwright's own imagination. Only he has, or should have, full command of the delicate intricacies of the entire play mechanism. Certainly no infallible or inflexible patterns can be established for the adviser during the stages of composition. If he can introduce sympathetic catalytic notions to the mind of the playwright, he has performed his duty.

How long must the play be? An absurd question, but a favorite one with the students, even those at the post-graduate level. To answer in terms of any page specifications would be ridiculous. The play must be of a substantial length, not only to satisfy the general dimensions prescribed by the graduate school, but, more important, to give an adequate dramatic treatment of the story and characters and one which will truly and fully represent the playwriting ability of the student. In most instances a full length play will be required, although occasionally a group of one-acts, dealing with a general area of subject matter or illustrating different dramaturgical or theatrical treatments of the same subject, may be accepted. And in most instances the creative thesis will be permissible only at the master's level. A creative thesis at the doctoral level, now possible in only two institutions, would not only be of an enlarged scope (more than one play) but would manifest the work of a distinguished playwriting talent.

Besides the manuscript of the play, the final thesis document may contain several chapters relating to the composition. The specific table of contents of these items will depend, of course, on the approach that has been adopted, and the following itemization is meant only to suggest the possibilities. The appropriateness of each must be determined by the adviser and the committee.

1. An essay on the writing and the approach to the play.
2. An essay on the dramaturgical and theatrical devices employed, a critical analysis of their history.
3. An essay on the sources, and the factual history of the subject matter.
4. The preliminary scenario for the play.

5. An essay on the production of the play. If the play is staged, the thesis might include several of the same items appropriate to the production book thesis (see Chapter 7).
6. If the play is performed, an essay on audience reaction and notes on possible rewriting to be done in terms of the production experience. This section might also include notes on rewriting that was done during the rehearsal period.
7. An appendix might include such items as:
 - a. Pictures of the production.
 - b. Program.
 - c. Audience reaction questionnaire forms with tabulation of results.
 - d. Short source documents not generally available.
 - e. Selected passages illustrating pre-production revisions in the script.
8. A bibliography of sources for form and for subject matter.

The thesis document that is to be retained by the university should represent as completely as possible the entire scope of the project. Again it must be emphasized the approach to the play and the character of the final thesis document are at the discretion of the adviser and must comply with the demands of the particular graduate school.

EVALUATING THE PLAY

The final judgment of the creative thesis presents similar complications. Not only is it impossible to set up absolute standards to describe the good play, it is even more difficult to describe standards for the acceptable graduate-thesis play. Obviously the immediate commercial measure whereby we judge plays in our contemporary professional theatre is not applicable to the thesis play if indeed it is applicable to any play. Even using the roughest or haziest critical evaluation, any theatre student can give examples of bad plays that have succeeded on Broadway and of good, or what are more frequently described as worthwhile, plays that have failed. Yet in a sense a sort of commercial evaluation does have pertinence. Drama tends to be a temporal form of expression and one which demands a certain degree of immediate acceptance. This does not mean that the best play is the biggest hit, but it does mean that a good play must reach, or at least be capable of reaching, a substantial portion of the population that has been sensitized to theatrical presentation. The plays that have endured in our dramatic literature may not have been free from critical attack, but they have endured the responsive appraisal of successive audiences.

The faculty adviser as critic does, of course, have extensive critical canons at his disposal, and these can be of assistance, but he must know that some measure of the final test must rest on the clarity and force of the impact on the audience or potential audience. A play does not possess an objectivity amenable to laboratory analysis. It cannot be laid out on the

table to be measured and weighed and compared with ideal dimensions. No art will submit completely to this kind of clinical examination, but the objective nature of the painting or piece of sculpture, for example, is, I believe, relatively more subject to this kind of critical study. A play may have structural excellence, an intriguing plot, well defined and interesting characters, but if it is not playable and if in the playing it does not penetrate and stimulate the consciousness of an audience, it is not a good play, if indeed it is a play at all. It would be foolish to insist that the graduate thesis play carry meaning for all men in all places and at all times, or even to insist that it reach a wide audience, but it must at least have pertinence in its own time and place and for an audience as large as the normal theatre audience in that community.

A severe appraisal of the creative thesis on the only legitimate terms on which it can be appraised, its artistic validity for the theatre, is no disservice to the student. Such honest judgment, the only appropriate judgment, will give the creative thesis M.A., M.F.A., and Ph.D. degrees a proper and honored place in the community of graduate studies.

But this restrictive attitude should not develop into a blind negativism. If the academic theatre is to encourage genuine creativity in the theatre art, as indeed it must to justify its existence and to make its rightful contribution to the American theatre, the qualified student should be urged to pursue the creative thesis project.

SUMMARY

The advocates of the creative thesis in theatre may at times become over-zealous in their endeavors to extend the ranks of the graduate candidates in this program. Anyone active in a university theatre will be continually reminded of the necessity for greater creativity among his designers, actors, and, if he does new scripts, in his playwrights. In fact, evidences of the creative spark become the only valid ground on which to reward his students, whether with grades or with kind words. His productions rise above the mill run only when the theatrical imagination of actor, designer, or playwright jumps into the clear air of genuine artistry. He cannot escape the obsession that the highest theatrical experience demands the highest creativity of all participants. But in his efforts to enlarge the creative horizon of his students, recognizing this as an obligatory function of the theatre teacher, he is misled if he assumes that all, or even most of his students, possess the peculiar imaginative turn and the substantial skill to produce an acceptable creative thesis.

The creative thesis program should not be opened to the many, but maintained for the few. Trudging through prescribed routine motions may yield a neatly typed manuscript of impressive bulk, but if it does not yield a play of apparent and unquestionable merit, more harm than good has been imposed on the student and on the program. It should be clear

to anyone directing an academic theatre that most undergraduate theatre students who pass immediately to the graduate level are not sufficiently matured in their living and in their art to undertake a creative contribution of thesis quality.

PLAYWRITING THESES

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- Baldwin, Joseph B. "*The Wishing Well*." University of Texas, 1946.
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- Chenoweth, Stuart C. "*Yesterday You Said Today*, a project in Lyric Theatre." University of Denver, 1946.
- Hunter, Kermit. "*Unto These Hills*, an historical drama." North Carolina University, 1949.
- Jones, Leo. "*The Chaff and the Stone*, writing and production of a three act play dealing with the Indiana limestone industry." Indiana University, 1948.
- Kerr, Walter F. "*Christopher Over Chaos*, an original play." Northwestern University, 1938.

M.F.A.

- Carlo, Donald F. "*For Bigger Bread*, an original play." University of Texas, 1953.
- Crockett, Harold Kelly. "*Kristin Lavransdatter*, a dramatization of Sigrid Undset's novel." University of Oklahoma, 1940.
- Groskritz, George. "*Channel Fever*." Yale University, 1952.
- Young, John Witcher. "*Coronado's Children*, an original play." Carnegie Institute of Technology, 1947.

Ph.D.

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CHAPTER 7

Directing, Designing, Acting

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INTRODUCTION

The art of the theatre is a complex, composite art that requires the co-operation of many people and the synthesis of diverse contributions. The goal of these individual efforts is the unified communication of the playwright's total meaning. This meaning which a skilled playwright *conceives* in terms of the theatre must be *projected* in terms of the theatre. The words of a poet or a novelist contain his complete meaning; his printed poem or novel is in its final polished state. But the words of a play script are only a partial description of the vision of life which the dramatist wishes to create. The playwright knows that he can, indeed must, rely on the combined skills of the director, the actor and the designer to build the bridge which will finally carry the complete play from his mind to the minds of his audience in the theatre. For the art of the drama and the art of the theatre can ultimately exist only in performance.

Therefore, one of the most appropriate and exciting methods of conducting a study in theatre is by means of the creative thesis in directing, designing, or acting.¹

DEFINITION OF THE PROJECT

The creative thesis is a project in applied theatre which gives the student an opportunity to undertake a challenging problem in directing, designing, or acting. The candidate defines and analyzes in detail the problem to be solved, collects and collates the materials and evidence applicable to a solution of the problem, makes the necessary value judgments, works out a step by step solution, and tests his solution to the problem through the performance of the play in the theatre. The creative thesis is in essence a production project and in one sense is satisfactorily completed when the directed play, the performed role, or the executed design have "worked" in the theatre. But this thesis, like all theses, is also part of the requirements for an academic degree and must accordingly be meaningfully re-

ported in an appropriate and acceptable written and/or illustrated form that meets the standards set by the department and graduate college concerned.² The M.A. is, and ought to be, an academic degree and should not be granted solely for practical experience in theatre.

PERSONAL CHARACTERISTICS TO BE CONSIDERED IN SELECTING A CREATIVE PROJECT

The student working on a creative thesis must naturally call upon a knowledge of dramatic theory, play analysis, history of the theatre, etc. to assist him in getting at the meaning of the playwright. He must reason and infer from all the available evidence. But if he is to be a really fine director, designer or actor he must have an artistic sensitivity or sensibility, an artistic insight. This ability will enable him to understand or intuit the inner drama or essence or action that constitutes the vision of life that the playwright had in his mind's eye when he wrote the play.

When the essential quality of the script has been discovered, the creative artist must evolve a production concept through which the structure and meaning of the play can be projected. This requires imagination and a relatively high degree of visualization. Molière, prodigiously successful as a playwright, director and actor, wrote: "Plays are written solely to be acted. I should advise only those who can visualize all the pantomime of performance (*tout le jeu du théâtre*) to read this play."³ Molière's dicta can be expanded and applied directly to all phases of the play production process. Creative artists must be able to imagine and visualize various appropriate ways in which the audience might see and hear the particular play which they intend to produce.

Because the theatre is concerned with the communication of ideas and emotions it behooves the director, designer and actor to know as much as possible about the manner in which human beings behave, both individually and collectively. This understanding will be immensely valuable to them from the first reading of the script to the performance. It will help them to apprehend the characters in the play, to select means for expressing the intellectual and emotional content of the play, and finally to estimate the effect on the audience of the produced play.

In relatively recent times the responsibility for coordinating all individual contributions into a unified, artistic whole has developed upon the director. The designer and actor must recognize this and not fight it. The director should understand it but must not take advantage of it. Each must learn to create within a unified concept derived from the inner meaning or essence of the playwright's script. Director, designer and actor must each understand and appreciate the proper spheres and functions of the others. They must not pre-empt. They must not compete. They must cooperate.

Finally, the student working on a creative thesis must cultivate a willingness to be judged by others together with the ability to judge himself

and his own work. The art of the theatre is a public art. The director, designer or actor will be criticized whether or no. If he can learn to take criticism and to discriminate between criticisms he will be moving toward maturity and probably toward better productions. In fact, he should learn to criticize his own work as it is in progress. If he can develop the knack of being an artistic schizophrenic, of being both creator and critic, artist and audience, he will be able to amend many of his own mistakes as he goes along. He should establish high performance standards for his own product, test this product on his own proving ground and make every attempt to eliminate the "bugs" before submitting it to public judgment.

The graduate student should not be unduly disturbed by the apparent enormity and difficulty of the factors that operate in conjunction with the creative thesis in theatre. The foregoing summary is phrased in terms of the ideal toward which the beginning director, designer and actor should aim. Obviously, each theatre artist will be stronger and more accomplished in some areas than in others. It is the rare artist in any field who combines the artistic insight or sensitivity to comprehend the exact nature of an experience with an equal proportion of technical ability to express this experience.

As presently constituted and administered in most university speech and theatre departments, the creative thesis program in theatre is not likely to turn out great numbers of completed degrees. Nor should it. The graduate degree with a creative thesis is intended primarily for a relatively small group of carefully selected students who have already demonstrated either considerable capability or potential in the areas of directing, designing, or acting, and may reasonably be expected to conceive a project with imaginative and artistic insight and to execute that concept with a high level of technical or professional skill. In those departments which require production or performance of the creative thesis the number of accepted candidates may be further limited by availability of production dates and facilities or production personnel (actors and crews) and supervisory staff. This may well result in stiff competition among candidates wishing to do a creative thesis.

THE PROCEDURES INVOLVED IN THE CREATIVE THESIS

In working through the following explanation of the major steps and methods involved in carrying out a creative thesis in theatre, several points should be kept clearly in mind at all times. In the first place, although occasional reference may be made to certain theatre techniques this discussion does not intend a comprehensive coverage of these techniques, nor does it intend to tell the candidate how to direct, design or act. It is assumed that the candidate has something more than a rudimentary mastery of his art and craft when he approaches the creative project. Secondly, the procedures suggested are not to be considered as the final, fixed form communi-

cated by a theatre oracle. They are a collation of the methods actually followed by a number of schools which offer this type of degree program. As such, they are meant to be more descriptive than prescriptive, or proscriptive. Some possible variations will be pointed out in the course of the discussion, some may be recommended by the school in question, others may occur to the individual reader as he thinks in terms of a particular script. Thirdly, the discussion will be based on the thesis in directing, probably the largest single genre of creative thesis. However, references will be made to the manner in which certain steps may or may not apply to theses in designing and acting. Finally, for convenience, the explanation will be made in terms of theatre, but it is assumed, I believe logically, that similar projects can be planned and executed in both film and television. The techniques, of course, will vary with the medium, but the basic problems and the potential for creativity will remain more or less constant for the director, designer and actor whether they are working in theatre, film, or television.⁴

Getting Approval. A Master's candidate who wishes to complete his degree with a creative thesis will undoubtedly have to demonstrate his ability in a given area. It is possible that this requirement may be satisfied by outstanding performance or execution of a project within a regular class. It is likely, however, that candidates will be expected to give evidence beyond class projects.

A potential director may be asked to direct a one-act play for viewing by the theatre staff. Sometimes the staff will require a written analysis of the aim and method of this production and its proposed adaptation to the facilities which would be placed at the director's disposal. Occasionally the candidate may be asked to serve as an assistant to the staff director of a major production. When the staff approves his application the candidate in directing must then obtain an advisor by whatever procedure is followed in his department. The directing project may frequently include responsibility for the general planning or supervision of scenery, costumes and lights, but detailed planning and execution will seldom be the responsibility of the director. In some instances a project in directing may be executed in conjunction with a project in design. In such cases the production will result in two theses and two degrees.

A prospective candidate for a design project may have to demonstrate his ability as a designer through sketches, photographs or other appropriate evidence submitted to the staff designer or designers (scenic, costume and lighting). If the design staff approves, the candidate may be assigned to a particular production or he may have to be accepted by the staff director of a production before he is finally cleared for his design project. The design project may include one, two or all three of the design areas. It is probable that combinations of scenery and lighting and of scenery and costumes will be most common, although lighting and costumes will periodically be warranted. The selection of areas is usually dependent

both on student interest and training and on the demands of the particular production.

The would-be candidate for an acting project will undoubtedly have to present himself in a suitable acting role in order that the staff as a whole or the acting instructors may evaluate his potential. This may be a role in a one-act play, a role study from a full length play or a role in one of the department's major productions. If approved for an acting project, the candidate will usually satisfy the performance portion of his thesis by appearing in a given number of substantial roles in major productions under staff directors. The number of roles required may vary from one to three. Frequently the department will require the candidate to perform under the direction of at least two staff members. As in the case of the designer, the actor may be more or less assigned the role or roles which will constitute his thesis project. Or, in cases where the identity of the candidate is known far enough in advance, the year's bill of plays may have been selected with the general understanding that a candidate could use such and such a role as part of his thesis project. In other instances the candidate may have to go through open tryouts and take his chance on getting cast.

Selecting the Project Play. Beyond meeting the exigencies of the production situation at the school in question the project agreed upon by candidate and staff must satisfy only one basic criterion: Does it present a problem of sufficient scope and difficulty to adequately test the artistic sensitivity and technical skills of this particular director, actor or designer? The candidate in directing frequently has a greater freedom of choice than his cohorts in acting and designing, but he also has to bear more responsibility in making that choice. The play which he chooses must not only challenge his ability as a director, it must also be worth the time and effort of the departmental staff and the student cast and crews that will help him produce it. Finally, he must select a play that is likely to arouse enough public interest to provide a substantial audience in his performance situation. In some schools the director's thesis production must pay its own way through money taken in at the box office. When this situation obtains the matter of exciting public interest takes on more importance, but the staff will make certain that the scale is not tipped too heavily toward achieving a popular success at the expense of the other considerations indicated above. In any event, persons working on a creative thesis must remember that communication with the audience is the ultimate goal of all theatre creation. The need for an audience should not be underrated nor its reactions too easily dismissed.

Three Basic Sections of the Creative Thesis. Regardless of what terminology is applied or what chapter headings are employed it is probably most meaningful to think of the creative theses in terms of three basic sections: preplanning, production, and evaluation. These three parts are present whether the thesis is in directing, designing or acting.

The problem must first be analyzed and defined and proposals made for its solution; second, the proposed solution must be tested and, third, the results must be analyzed specifically in terms of the problem and the success or failure of the attempted solution. If the thesis is to be of the most value to the candidate and others who may later study it, each of the steps should be taken in its proper chronological sequence and put in more or less complete form while the student is working on that particular phase of the project. Otherwise, the frailty of the average human will and the vanity of the normal human psyche encourage the candidate to indulge in *ex post facto* rationalizations that can mar the total effectiveness of the thesis as a learning and teaching device. He may be tempted to make certain minor adjustments in the way he “thought” he saw the problem and the proposed solution in order to make them conform a little more agreeably to the results which he now knows obtain.

SECTION I. PREPLANNING

Purpose and approach to preplanning. The purpose of the director’s preplanning is twofold: to discover through every available technique the total meaning of the play and, as a result of this understanding, to establish a concept, an approach to production, which will project, express, communicate this total meaning to his audience, in his theatre, through his actors and his technical facilities. When Louis Sullivan stated his belief that “form must follow function” he established a precept that is equally valuable in architecture and theatre. Good architects analyze what is to take place in a building and structure the building accordingly, using the forms and materials that will best accomplish the purpose, best serve the necessary function. When they are able to do this the building “works”. If the architect is not only good, but an artist, he handles the forms and materials in such a way that in addition to functioning well they afford a sense of aesthetic pleasure to those who see and use the building. Similar conditions obtain in the theatre. The dramatist, the original creative artist, has a vision of life which he forms into a play according to the needs of that vision and somewhat according to the needs of his theatre. If he is a good dramatist the play “works” in the theatre. If he is a genuine artist of the theatre he handles his materials so skillfully that the play not only works, but gives a sense of aesthetic pleasure. The director, designer and actor must in a sense reverse the process, must re-create. By every means at their command they must work back through an understanding of the form and content of this script, toward a comprehension of the total meaning which the author meant to encompass with this play, in this form, in the theatre for which he was writing. The director, designer and actor who realize that form should follow function are on the right track. If they can correctly analyze the needs and functions of a play they will have a clear view of the job to be accomplished. If they know their business they will

then be able to establish a plan, a concept through which the needs of the play can be satisfied. They will design a form to serve the proper function of the play. This is the purpose of the preplanning portion of the creative thesis.

The art of the theatre is man-made and can be subjected to analysis. For the sake of convenience and expediency this analysis can be divided and labeled as external and internal according to the starting place and the type of material examined. External analysis involves an examination by the director, designer and actor of all the factors and evidence which lie outside of the script but which may affect the play and an audience's understanding and appreciation of it. Internal analysis is an examination of all the factors and evidence which lie inside the script and may affect the audience's understanding and appreciation of it. The dichotomy thus established is, of course, an artificial one designed to facilitate study of the problem. In practice the art of the theatre should combine information and materials, fusing them through the creative and interpretive artistry of the contributors into a new and organic whole which is different from and greater than the sum of its individual parts.

Because each play in each production situation presents a new and unique problem the actual organization of the preplanning section will and perhaps should vary considerably from thesis to thesis. Each candidate must evolve a pattern which best satisfies his play, his situation and his advisor.

External analysis. One of the best ways to understand a play is to approach it through the social milieu in which it was written, the physical theatre in which it was meant to be produced and the audience who were meant to enjoy it. When this is done the student may well agree "that varieties of stagecraft [skill in writing plays] and stage were not historical accidents but artistic actualities."⁵ If he can discover the relationships between a play's content, structure and style and the conditions under which it was originally produced he will have a much firmer base from which to estimate the interpretation which the author intended and the effect that the play may have had on the audience. With this information the director, designer or actor is in a position to make decisions about adapting the play to his own stage and audience.

In examining a play in this way the student will be trying to discover such things as the physical structure of the theatre as a whole, the conventions, the relationship between the audience and the stage, the style of acting, the kind of scenery, costume, illumination, etc. If the play selected was written prior to the development of illusionistic playwriting and staging, the director, designer and actor will find that all of the indicated factors differ in varying degrees from his own contemporary theatre. He is faced with the basic problem of taking a play written for one theatre and staging it in a different theatre with a different set of conditions. In relation to each particular play a continuing series of questions will arise. It is

through his analysis, the decisions he makes and the production concept which he evolves that the candidate reveals his understanding of the art of the theatre and his artistic sensitivity—or the lack of it.

If a student working with a contemporary proscenium arch theatre should happen to choose a play from any one of a variety of past periods such as Greek, Roman, Medieval, Elizabethan, French Neo-Classic or English Restoration many of the smaller questions which he must raise and answer will be grounded in or related to the presentational nature of these plays and the theatres for which they were written. In varying degrees plays written during these periods were audience centered; the actor was an actor; the stage was a stage; the actor and audience occupied the same world of aesthetic sensibility. To perform these plays in a modern realistic, representational, illusionistic manner would be a violation of the original intent. And yet the student's theatre and audience are basically oriented toward representational drama and production. What is the candidate to do about rationalizing these two opposing points of view? How can he remain true to the original intent and form and still communicate the play as a meaningful experience to his contemporary audience? The deliberations he goes through and the decisions he reaches should be clearly reported in the thesis. They are an important and meaningful part of the preplanning stage.

There can also be external analysis of the milieu out of which the content and/or form of the play grew. Certainly plays such as *Waiting for Lefty* and *Awake and Sing!* by Clifford Odets should be examined in relationship to the social and economic conditions of the depression. Anouilh's *Antigone* will have to be seen against the background of the Nazi occupation of France during World War II. The emotional and intellectual meaning of Maxwell Anderson's *Winterset* will only come correctly into focus with an understanding of the Sacco-Vanzetti case with all its ramifications. A thorough knowledge of the theories, techniques and methods of expressionism will be useful in understanding and communicating such plays as Eugene O'Neill's *The Hairy Ape* and Elmer Rice's *The Adding Machine*.

External evidence is frequently available in the form of attitudes or intentions which a dramatist has put down relative to a particular play or theatre in general. A student undertaking a play by Ben Jonson soon finds that Jonson has enunciated a theoretical approach that forcefully indicates his intention and differentiates both the form and content of his plays from those of Shakespeare, though both were writing at the same time and often for the same company. Arthur Miller's *Death of a Salesman* can be profitably examined as an illustration of the author's stated theories relative to the tragedy of the common man. *Mary of Scotland* and *Elizabeth the Queen* can be seen in terms of Maxwell Anderson's theories about tragedy. Almost any O'Neill play can be further illuminated by the author's comments. As a matter of fact most modern dramatists have been quite free in explaining either what they have done or intend to do.

A large body of external evidence will usually be made available through an examination of the stage history and the accompanying critical comment of each individual play. It is frequently quite revealing to investigate how a play has been produced and received at different times, in different places, and under different conditions. But to earn a place in the preplanning portion of a creative thesis it is not enough that this material be merely interesting. As is the case with everything else that is included, the student must justify its presence by establishing a meaningful relationship between it and the eventual formulation of a production concept. But production history and critical commentary can be quite helpful in understanding the purpose and meaning of a play as well as in judging its strengths and weaknesses. Chekhov is an excellent case in point.

In its premiere at the Alexandrinsky Theatre in 1896 *The Seagull* was a complete failure. Two years later when it was produced during the first season of the Moscow Art Theatre it was a complete success.⁶ Under the aegis of Stanislavsky and the Moscow Art Theatre *The Seagull* and later *The Cherry Orchard* were both played as tearful tragedies of disillusion and despair. Subsequent productions in other countries also emphasized these qualities. In recent years, however, David Magarshack, a widely published scholar in the area of Russian drama and theatre has maintained that such an approach to Chekhov is a clear misinterpretation of Chekhov's intent. According to the evidence Magarshack presents, Chekhov apparently agreed. Chekhov told a fellow writer: "You tell me that people cry at my plays. I've heard others say the same. But that was not why I wrote them. It is Alexeyev (Stanislavsky) who made my characters into cry-babies."⁷ Going even further Chekhov called *The Cherry Orchard* not a tragedy but "a comedy, and in places even a farce."⁸ Magarshack feels that the generally current misconception of Chekhov can be accounted for:

It was Stanislavsky who was mainly responsible for treating Chekhov's plays as plays of frustration and it was he who imposed this view on the rest of the world. But the bitter conflict between Chekhov and Stanislavsky is well known, and the most obvious mistake some producers make is in either overlooking this conflict altogether or drawing the wrong conclusion from it. They all ignore the final aim of the four great plays. Indeed, they usually go so far as to deny that such an aim exists and purposely play down or entirely ignore those parts of the plays which deal with this aim. Hence the spurious "Chekhovian" atmosphere which is laid on so thickly in every Chekhov play.⁹

If a Chekhov play is chosen for a creative thesis project, how should it be played—tragedy, comedy, or in between? Obviously, these few notes are not meant to be any kind of thorough analysis of Chekhov. They are merely indicative of the fact that the practice of external analysis is necessary and, if properly carried out, challenging.

So much for external analysis. It may come before internal analysis, it may come after. Sometimes the two will be combined to examine a play

point by point according to its form, style, etc. There is no one "correct" way. After examining *all* the available evidence the student will arrange it as he believes it to make the most sense with respect to a particular play and a particular production situation.

Internal analysis. Naturally enough, the best source of information about a play is the script itself. The wise theatre artist studies the script early and he studies it late. If the play is a really fine one it will frequently continue to reveal itself through close and continued scrutiny. The manner of attack, of course, will vary from person to person, from play to play, but whatever the procedure followed it should be a part of the preplanning section of the creative thesis.

The analytical system which the individual student develops will probably be an eclectic one that in one way or another moves from a study of the whole to a study of the parts. One of the newer textbooks on directing suggests that the script be studied through a series of five readings, "a procedure which gradually 'gets inside the skin' of the play." The purpose of the first reading is to give the director "the general feeling of mood, meaning, and audience response." The succeeding readings are aimed at providing him with an understanding of: theme and situation, conflict and crises, characterization and problems of production.¹⁰ Harold Clurman, a successful director who has written perceptively about all phases of theatre agrees that the director should start by crystallizing "a general sense of the play" and then go on from there:

When the director arrives at his sense of the play, he will ask himself (a) "What features of the play have induced it?" (b) "What does it mean?" (c) "Why is it affecting or important?"

When he has answered some of these questions for himself, he will begin to note the methods the playwright has used to produce this effect on him. He will begin to examine the play's details; and he will decide which ought to be emphasized or minimized, according to a scale of values that he will evolve for himself.¹¹

Certainly the oldest and one of the best methods of moving from a general sense of the mood and meaning of a play to a detailed understanding of the play is the method which Aristotle suggests in the *Poetics*. Every serious drama student should be familiar with a good translation and commentary on the *Poetics*. It is enough here to note that in analyzing tragedy as a dramatic form Aristotle isolates six parts or elements that seem to be equally applicable to other forms or categories of plays: plot, character, thought, diction, music and spectacle.

These six elements are in every play and thus can serve as a convenient and meaningful basis for analysis. It is the way the dramatist uses these elements, the manner in which he puts them together, the relative emphasis or focus which he gives each one that makes his play a unique and recognizable phenomenon, that gives it shape and form. Thus it is pos-

sible to have many plays dealing with the same subject matter, but each one different. To take an obvious example Aeschylus, Sophocles and Euripides each wrote a play treating of the story which revolves around Electra, Orestes, Clytemnestra and Aegisthus. Anybody who has read these three plays knows that they are vastly different one from the other. It is the variations in the treatment of plot, character, thought, diction, music and spectacle that make them so. In examining these elements, in carrying out any phase of the internal analysis, the student must continually ask himself: "Why did that artist [the dramatist in question] do that thing in that particular way instead of in some other way?"¹²

The student must put the play under his own intellectual and artistic microscope, examining each one of the elements or parts as carefully as possible. If his instrument is a good one he will come to some understanding of each part's shape and function in relationship to the whole. As he now reassembles the parts he may well begin to get some feeling for the dramatist's intent, some understanding of the concept in which the play was grounded and which in part accounts for the mold in which it was cast.

The form of the play. At some point in the preplanning process the student will want to come to a decision about the form of the play. Form refers to the classification of the play as a tragedy, melodrama, comedy, farce, serious drama or whatever. The category in which the student puts the play should be determined by the emotions which he thinks the play is meant to arouse in an audience: pity and fear, suspense and terror, laughter, etc. Within each form it will frequently be possible to distinguish various types. For instance, within the form of comedy the play might be classified somewhat more specifically as romantic comedy, comedy of manners, sentimental comedy, comedy of wit, satire, burlesque, etc.

The student may determine the form of the play as a result of his analysis of the play's parts. That is, as he examines such things as the plot, characters, thought and dialogue it becomes clear that the play is such and such a form and perhaps such and such a type within that form.

On the other hand, because of ideas or theories expressed by the author or because the play was obviously meant to fall into a certain form or type, the student may work in the opposite direction. That is, he might establish a basic theory of tragedy or comedy and use this as a point of departure. If external analysis had revealed that the dramatist had certain theories or ideas about the form in question, these would then be introduced and compared or contrasted with the basic theory established. The plot, character, thought, dialogue, etc. might then be examined in the light of the theory. The final result would probably be an estimation of both the degree to which the dramatist had succeeded or failed and the places or parts of the play in which he had achieved this relative success or failure. The wise student will be thinking about ways in which the actual production can underscore the strengths and obviate the weaknesses which seem to be inherent in the script.

The style of the play. When the student has reached this point in his preplanning procedure he is ready to put into words a decision that he has probably already reached. This is a decision relative to the style which he believes would be appropriate to his production of this play. Style, a much used and abused word in the theatre lexicon is here understood to mean "the degree and kind of lifelikeness that a playwright has used in his writing, the degree of his selectivity in dramatic form and structure."¹³ As a result of his analysis and understanding of the script, the director will probably have little trouble deciding whether the play should be presentational or representational, but he may have difficulty pinning down the exact style within either of these two general modes. He will have a choice of such more or less standard terminology as: classic, romantic, realistic, naturalistic, expressionistic, etc. Some plays slip easily into a certain niche. Others will be a combination of styles. Whatever the case, he must decide. It is an important decision that will have ramifications in every phase of production. Alexander Dean has written cogently of what the choice will mean to the director:

The determination of style will tell the degree, kind, and amount of composition, the simplicity or complexity of form to be used in the groupings. It will settle the actor's body relationship to the audience, the use of areas and levels. For instance, are the stage pictures to be "closed in," as if the fourth wall had been removed; or are they to be flat and open to an audience to connote a more artificial form? . . . Are the actors standing about on a stage or moving around in an actual place? Is the setting to be a mere pictorial background, or is it to be used by the characters as part of their actions? Is the movement to be arbitrary or highly motivated? . . . Answers to these questions and many more of the same kind determine the definite style or manner that the play is to acquire from the direction.¹⁴

Although Dean intended these words for the director, their application to the designer and actor is apparent. Each of the latter will, in the modern art of the theatre, have to create within the concept established by the director, but able directors will leave room for the designer and the actor to make their contributions.

The director's approach or concept. If the student director has worked through the preplanning portion of his thesis by means of a combination of external and internal analysis appropriate to the demands of the particular script with which he is concerned he is now in a position to establish a working approach or concept that will serve as a guide for himself and everyone else working on the production. This concept may actually grow out of a seed planted by an early reading of the script. Harold Clurman says:

My first reaction to Clifford Odets' *Awake and Sing!* was a sense of chaos. This chaos could be described in terms of conflicting colors laid on "cubis-

tically" in uneven patches one over the other, or of incongruous combinations of objects, of voices in cacophonous counterpoint. While this chaos, like all disorder, had its comic side, it was, in this instance, essentially melancholy.¹⁵

This is a good example of the way in which a production concept begins. As more analysis brings a greater understanding of the meaning of the play this concept may be modified or made more specific. It might contain examples of the manner in which the concept is to be made clear to the audience:

For example, in *Awake and Sing!* the feeling of disorder and melancholy was heightened by making the settings, which originally called for a separate living room and a separate dining room, into one scene, so that we might see the whole apartment with its disparate and simultaneous activities at one time. What was typical of such households? For me, to mention one item, a large and prominently placed calendar always gave rise to the feeling of almost comic gloominess; particularly when these calendars were decorated, as so often happens, with some picture of sentimental luxury.¹⁶

Clurman has worked artistically to form a production concept out of an intuitive feeling for the script. He has worked from the intuitive concept to practical details which might embody it. Another director might approach the problem somewhat differently, more theoretically. For example, this is the approach indicated by the director of a university production of O'Neill's *Marco Millions*:

The show, in my estimation, is primarily a satiric comedy within a romantic setting against a background of colorful, oriental spectacle (see attached time-and place-chart of scenes). It satirizes the American business man, or any man, who closes his eyes to eternal truth, beauty, and love in his acquisitive quest for gold. At the same time, the play is romantic spectacle or at least partakes of many elements of the spectacular. There is, therefore, a definite clash between the romantic and the satiric, between the emotional and the satiric comic, which offers difficult problems in interpretation. Part of this difficulty is resolved in the play in that the satire is directed against the unromantic. A clue to the solution of the difficulties, so far as production is concerned, lies in the definitely fantastic nature of several of the scenes. Even though the play is satiric, the probability is on a level of fantasy. The play must be presented in a stylized form which will harmoniously combine the romantic and realistic elements.

I shall therefore direct the play for these values:

1. To bring out the element of satire,
2. To play up and enhance the fantasy and spectacle,
3. To present the action and characters in a stylized form but, because of the satiric element, to employ a stylization rooted in realism.¹⁷

With a concept such as this firmly in mind and clearly stated the student is now only one step removed from the completion of the preplanning portion of his thesis.

A scene by scene analysis. If properly executed, the scene by scene, or unit by unit, analysis will provide the student with an excellent spring-board into the actual production work of his show. Its purpose is twofold: (1) to discuss each scene in terms of its purpose and meaning within the structure of the play as a whole, and (2) to explain the general staging methods which the student believes would be most effective in projecting the total meaning of the scene in performance. In other words, the student is making a rough application of his concept to the unit by unit construction of the play. The analysis of each scene should be worked out in some detail with consideration of whatever factors are pertinent to the materials, methods and purposes of the individual scene, but the explanation of the staging may be general and suggestive. The detailed working out of the concept will be revealed in the moment by moment interpretative commentary of the prompt book.

This scene by scene analysis may be approached in one of two ways. The traditional method is by means of the French scene which breaks the play up into sections marked off by the entrance or exit of major characters. A second method is to divide the play into motivational units. Dietrich has defined the motivational units as "an integral scenic unit in which the motivational pattern remains unchanged."¹⁸ Either method is feasible. The student will have to decide which method will do the better job in terms of his own play and his understanding of it.

An alternative or auxiliary approach to the meaning of the play. There are many plays, particularly out of the post-Ibsen representational mode of drama, that seem to lend themselves to an alternative, or more accurately, an auxiliary approach. This approach, derived directly or indirectly from Stanislavsky, uses different terminology in its effort to help theatre artists reach the same destination—the meaning of the play.

In employing this approach the director is asked to concern himself with the basic line, the "super-problem," "the spine," "the trunk" or the "super-objective" of the play. Stanislavsky himself says that "what we need is a *super-objective which is in harmony with the intentions of the playwright and at the same time arouses a response in the soul of the actors.*"¹⁹ Clurman says that the director gets at this problem by asking himself the question:

What is the *basic action of the play*? What is the play about from the standpoint of the characters' principal conflict? Every plot has a superficial resemblance to innumerable others. To give his play its specific meaning, the director must decide what fundamental desire does the plot of his play symbolize, what deep struggle gives it shape and direction. What is the play's *core*? For Gordon Craig, *Hamlet* is a story of a man's search for the truth. Saroyan's *My Heart's in the Highlands*, to its New York director, was the story of people eager to give things to one another—lovers all, in a sense. For me, Odets' *Night Music* had to do with the search for a home.²⁰

When the director is certain that he has found the main line or “spine” of the play he will then try to locate the main line, “spine” or basic motivation for each of the characters in the play. Each character’s main line must be developed in relationship to the basic action of the play. For as Stanislavsky explains: “In a play the whole stream of individual, minor objectives, all the imaginative thoughts, feelings, and actions of an actor, should converge to carry out the *super-objective* of the plot.”²¹ And he is certain that if this impetus toward the super-objective is properly formed, “if it is human and directed toward the accomplishment of the basic purpose of the play it will be like a main artery, providing nourishment and life to both it and the actors.”²²

In this approach the director manages his scene analysis through the motivations or wants of the characters:

It is imperative for the actor to know *what the character is trying to achieve at each moment of the play*. These are the basic actions of the play. As each of these actions is achieved or, owing to conflicting currents in the scene, is transformed into a new action, “the Beat” changes for the actor. The line of these “beats”—their interconnection, logic, movement—shapes the actor’s part: gives it a beginning, middle, and end; gives the part meaning, movement, climax.²³

Some directors and actors are attracted very strongly to the Stanislavsky approach and make it work. Others argue vehemently against it. Still others claim it is right for some plays and wrong for others. Many directors, either consciously or unconsciously, use it in combination with the perhaps more conventional approach outlined earlier. Regardless of method, the need to find and project the meaning of the play remains constant. This is the job of the student working on a creative thesis.

The preplanning section of designing and acting theses. In the contemporary theatre it is generally agreed that the responsibility for establishing a unified production concept rests with the director. The designer and actor must work and create within the framework of the approach which he devises. If the concept is clear and vivid and true to the dramatist’s intent it can serve as both an inspiration and checkpoint for designer and actor. Within the area of his proper function, each of these co-artists will be able to create through the skills and techniques of his art. Mielziner has created superlatively in conjunction with Kazan, as Julie Harris has with Harold Clurman. Lack of artistic sensibility and technical ability is what limits creativity, not the framework of a unifying idea.

The production thesis in designing or acting will ordinarily fall into the three basic sections which have been suggested: preplanning, production and evaluation. The preplanning section usually begins with a brief introduction which tells how and why the student and the thesis topic got together and outlines the manner in which the thesis will be organized. In the case of the designer this introduction will also state which combination of the three design areas (scenery, lighting, costume) will be in-

cluded in the thesis. The introduction might then be followed by a short summary of the background materials which are particularly pertinent to the author and the play. This is more or less a courtesy chapter to orient the reader.

The designing or acting thesis gets down to business with a chapter which includes the director's concept of the production in whatever form and degree it has been made available. Sometimes the director will not organize a written statement but merely holds consultations in which he discusses informally the approach that he intends to follow. These suggestions may be quite vague and disjointed and the responsibility for organizing them then devolves upon the designer or actor.

From this point on the preplanning section of the designing or acting thesis can follow much of the pattern outlined and discussed above in terms of the director. Naturally, these procedures would now be focussed on the objectives and problems of the actor or the designer. Each would make an external and internal analysis of the script to obtain all the available evidence that pertains to his function. There is little need at this point to discuss specific methods for accomplishing this. Many will be apparent by analogy, others will derive from class instruction and experience, and still others will be pertinent to a specific author or play or the production concept of the director. It goes without saying that every bit of evidence gathered must be filtered through or seen in relation to the director's concept.

The designer and the actor will not have to determine the form or style because this has been settled by the director. However, they must show what the chosen form and style mean in terms of designing or acting. A scene by scene analysis should probably be included somewhere or somehow in the preplanning portion. It could serve as the basis for much of the organization of the whole section.

Preplanning summary. Whether by director, designer or actor, the preplanning section of the thesis should follow a similar pattern and achieve similar goals. The intent of all should be to discover the inner meaning and significance of the play. In the case of the actor, of course, it would also mean the determination of an individual character's use and function in the total scheme of things. As a result of this understanding each will estimate the means and methods through which he thinks the meaning can best be projected to an audience.

The *pre* of preplanning is important. It means *before* the production, not after. Under no condition should it become "how I did." It must be: what I think needs to be done and how I think it can and should be done. In a very real sense the preplanning section of the thesis should establish a creative hypothesis in terms of directing, designing or acting a particular play, in a particular theatre, for a particular audience. This creative hypothesis (the directing, designing or acting concept) will then be tested in production.

SECTION II. THE PRODUCTION RECORD

The production section of the thesis is all that can be meaningfully recorded on paper of the materials and methods which were used in the execution of the concept in the actual production. It is a detailed verbal and pictorial record of the manner in which the director, designer or actor prepared and performed his part of the production process. Admittedly, such an account cannot fully recapture the living, organic quality which really explains how the artist or his artistry actually functioned, what his contribution really meant in performance. Nevertheless, much can be explained by means of words, plans, charts, sketches and photographs. If well achieved it can provide the interested, intelligent and imaginative reader with an understanding of the relationship between a particular concept and its execution.

The complete record of a performance must necessarily deal with all the materials of play production: play, director, actor, scenery, lighting, costumes, make-up, properties, sound, music and perhaps certain other special materials such as dance. The production record of the creative thesis must therefore consider all of these materials but only to the degree that they constitute a part of the assignment or affect the execution of the assignment of the director, designer or actor. The bulk of the production section will be devoted to reporting in full the materials, methods and functions for which the director, designer or actor is fundamentally responsible. But, in addition, it should contain a brief summary of the other materials, methods and functions for which someone else is primarily responsible but which touch tangentially upon the performance of the particular artist concerned. The distribution of responsibility for these materials will vary from school to school and play to play and therefore from thesis to thesis. Because the production process involves procedures and disciplines germane to formal training in the areas concerned, a certain familiarity with terminology and processes can be assumed. In addition, the actual organization of this section may be related to the rationale established in the preplanning section of the thesis in question, or may need to follow a plan or pattern set up by the candidate's advisor or department. For these reasons the following discussion will remain general and descriptive, except for a slightly fuller explanation where experience has shown that confusion is likely to arise or that a particular approach has been generally more useful.

The production section of the creative thesis in directing is naturally more inclusive than that of either the designer or actor. Because he bears the overall responsibility for the concept and the production, the director will deal with all the production materials in his report. Occasionally, the director will also be responsible for the actual designing of scenery or costumes or lighting. Usually, however, they will be designed by one or more other persons who use the director's concept as a point of departure. In

any event the director must have certain information relative to the design areas before he can proceed very far with his own work. Therefore, it may be more profitable to consider first some of the requirements of the production record section of the design thesis.

The production record of the designer. As the designer moves from the preplanning stage into the actual production process he will bring with him a clearly formulated design concept derived from a close analysis of the script as seen in relation to the overall production approach conceived by the director. This design concept has probably been applied roughly to the various scenes of the show and the director has usually given a general clearance to proceed along the lines thus established.

In the production section of the thesis the designer will record all the steps which lead to finished set, light or costume designs on stage. He should usually include a carefully defined description of each individual problem together with his attack on the problem in terms of the total design concept; a summary of his research in connection with each problem; the relationship between the particular design area and the other design areas (*i.e.*, the inter-relationship of set design with the costumes to be worn and the lights to be used); brief notes on the individual steps in the design process; description of the finished designs; sketches of the designs; and photographs of the designs.

The above considerations are generally applicable to all of the design areas. In addition, a few special requirements may be listed for each area. A scene design thesis should include: A complete ground plan for each set, a complete elevation for each set, working drawings for each set, a production building schedule, a cost sheet, and a property chart. A candidate submitting a thesis in light design should include: A light plot plan for each scene, an instrument table for each scene, the control board set-up for each scene, a verbal light plot of each scene, and a lighting schedule. A thesis dealing with costume design should include: A costume plate for each costume, specifications and budget for each costume, a costume and scenery color chart for each scene, a costume change chart, a costume building schedule, and a make-up chart.

The production record of the actor. There seems to be little unanimity about what should be included in the production record of the acting thesis. Available evidence indicates a wide divergence of opinion and practice. Only one statement can be made with absolute assurance: the candidate must report the development of each role that constitutes a part of his thesis in the form and manner prescribed by his department and his advisor and the demands of the role and the production.

The actor must evolve a presentation that reveals the step by step procedure by which he developed the character in relation to the meaning of the playwright, the director's approach and his own idea of the manner in which the role should be conceived and executed.

Actors usually find it hard to verbalize about their art. It is, admittedly,

quite difficult for an actor to say *exactly* what, why and how in terms of things done or not done. The actor as an instrument is almost inseparable from the actor as an artist, and as a human being with all the frailties pertaining thereto. Nevertheless, the actor must do his best to report on the development of the role during the rehearsal period without letting that report become sterile, more dully analytical than creative. This is a real problem, but the actor must do his best to solve it.

If the actor has not previously done so, he might begin with an organized analysis of the role as he understood it at the beginning of the rehearsal period. This would be based on all available evidence from the script (descriptions of the character, what he says, what he does, what others say about him, etc.) and would reveal the actor's understanding of the character's function in the plot and in the projection of the play's total meaning. This analysis of the character is sometimes followed by a "self inventory" of the actor relative to the demands of the role. In as objective a manner as possible the actor reports on his equipment as an actor—his voice quality, range and volume; his height, weight, build, bodily flexibility, etc. Thus, in effect, the actor does his best to indicate where he and the character started at the beginning of the rehearsal period.

If the account of the development of the role and the actor is going to have any sense of life and vitality, indeed, any real value, it cannot be entirely *ex post facto*. The actor must devise a system which allows him to show what was happening while it was happening. When the production is over, the actor can then re-evaluate, perhaps even disavow, some of his on-the-spot findings. Thus, some sort of day by day or rehearsal by rehearsal record is necessary. Some actors keep a rehearsal diary and report this in full in the thesis. Others keep such a diary and then use it as a basis for comments concerning the development of the role, achievement in certain problems, etc. Whatever system is used can be correlated with the individual scenes in which the character appears. This would provide a running commentary on the rehearsal and development within each scene and within the play as a whole.

The actor's production record should reveal the manner and degree to which the director's concept and the execution of it during rehearsals affected the rehearsal and performance of the actor's role. How did the floor plans work out? How did the placement of doors and pieces of furniture affect actor movement? How did the use of levels influence the actor's portrayal of the part? Costumes? Props? The use of improvisations, demonstrations? If the play was done presentationally, what difficulties were confronted in this respect? Etc., etc. In a large measure the actor's artistic sensitivity may become evident in his recognition of the factors which affect the development and performance of the role.

The production record of the director. The production section of the creative thesis in directing should be an all inclusive record. It should report in full those areas which are the sole responsibility of the director and

summarize the work which others have contributed under his supervision and in relationship to his production concept. The completed prompt book will constitute a large share of the record.

The director's production record will frequently begin with a section which explains how his production concept was coordinated with or related to other phases of production. This will therefore include a discussion of scenery, costumes and lighting with reproductions of appropriate ground plans, costume charts and perhaps light plots which visually summarize the work of the people primarily responsible for these designs. In most instances he will also deal briefly in the same way with make-up and props. If formal production conferences are held with the scenery, costume and light designers he will indicate how many were held, when they were held and what transpired. If there were no formal conferences he will explain how he worked individually with the people in these areas. Most experienced directors will set up a production time table and crew call which is reported in chart form in the production record section of the thesis. If one or more of the areas of design has been previously designated as part of the director's assignment he will develop this area completely as suggested in the section covering the designer's record of production. But the major portion of the director's production record should be concerned with the casting, rehearsing and performance of the play.

1. *Casting:* This section should outline the procedure that was followed in casting the play. It will indicate the number and kinds of tryouts and the manner in which they were conducted. If tryout blanks or casting cards are used a sample should be included in the record.

2. *Rehearsing:* The production record will, of course, contain a copy of the rehearsal schedule indicating date, location, length, etc. of all rehearsals. But the thesis will be of far more value if the director also develops his rationale of rehearsal in some detail, explaining the what, why and how of the plan which he followed. If the production had to deal with any special features such as music, dance, fencing, period manners, etc. the director should indicate how he attacked these problems. If the director employed improvisations, pantomimes, exercises or devised other special techniques, he should explain how and why he used them.

3. *The Prompt Book:* The prompt book should contain as complete a record of what the audience saw and heard in performance as can be put on paper. It should note all entrances and exits, all movements, business, gestures and handling of props, all notations relative to the interpretation of lines, all notations relative to tempo and pauses, all light changes, music and sound effects, together with their warning cues, notations relative to the speed of curtains, etc. Some directors will plan much of this on paper in advance of rehearsals. When this is so, they or one of their assistants should note all changes which occur during the process of rehearsal. Others will put little down on paper but will have worked much of it out in their heads. This type of director, or one of his assistants, will

then need to record these materials as the play is being rehearsed. In any event, when the prompt book is in its completed form at the end of the run it should be a record of the actual performance in the theatre.

Most textbooks on directing recommend several ways in which one or two printed copies of the play can be pasted on 8½" x 11" paper to make the physical prompt book. However, when the prompt book is to serve as part of a thesis, other methods may be more satisfactory. One such method is to interleave blank pages with pages of the typed script. In this system the text is on one page and the blank page opposite can then be used to record the interpretative information. Still another approach, perhaps the neatest and clearest of all, is to type the script on the right or left half of the page and the interpretative material on the opposite half of the same page. Those familiar with television will recognize that this is the standard form in which scripts are prepared in that medium.

Various abbreviations and symbols can be used in recording interpretative material in the prompt book. It does not matter what system is settled upon so long as it clearly and accurately indicates exactly what the audience is supposed to be seeing and/or hearing at that point in the script. However, several recommendations can be made which will materially assist those who later study the prompt book. Number *all* interpretative notations consecutively in each scene or act and insert corresponding numbers at the *specific* place in the dialogue where the notation is meant to apply. Beware of becoming too intrigued with colored pencils—a separate color for lights, sound, etc. The ultimate aim should be clarity, not a “pretty” visual effect. Do not hesitate to use small sketches or floor plans in the margins when they will help orient the reader after a complicated movement pattern or rearrangement on stage. On the other hand, a new sketch or floor plan is not needed every time a single character takes one step R or L. Use your common sense. Use any system or arrangement that you think will clarify the situation for those using the prompt book.

4. *Translation and Textual Changes:* If the play was originally written in a foreign language the director may have to choose between several translations. In this event the director should discuss the merits of the various translations and indicate the basis on which the selection was made.

Likewise, the cutting of a script is an important matter. Some cuts may be made merely because of running time, others because of obscure or dated references, others on account of local mores, etc. In other instances the director may choose to transpose the order of scenes in a play such as *Hamlet*. A rationale should be established for all changes and these changes should be clearly indicated in the prompt book. Cuts should be set off in brackets and the justification for them clearly indicated in the blank space opposite, the space ordinarily set aside for interpretative notations.

5. *Budget:* Schools which establish a budget for theses productions or expect them to be able to pay for themselves will certainly expect a budget

page to appear in the production records. Occasionally this will be divided into "estimated" and "actual" costs for each item.

6. *Time Sheet:* This is a chart which shows the running time or playing time of each act or individual scene. It will also tabulate the intermission time and the total elapsed time from opening to closing curtain. This record is kept by the stage manager and will usually include the final dress rehearsal and each performance.

7. *Advertising and Publicity:* The director should include in his production records a brief account of the manner in which the advertising and publicity were planned and executed. Copies of all newspaper stories, ads, etc. should be placed in the thesis in chronological order and identified according to date and place of publication.

8. *Program, Ticket and Pictures:* It is more or less customary to include a sample program and ticket. And, of course, no production record would be complete without pictures. The scenes to be photographed should not be picked at random but should be carefully selected to reveal the characteristic qualities of this particular production. The number of pictures will vary according to the nature and complexity of the production. There should be at least one picture of each set in action. The pictures should be taken by a good photographer and carefully mounted in the prompt book section of the thesis.

The production is now completed, the set has been struck, the costumes are at the cleaners and the day of reckoning is at hand. The director, designer or actor has come to the third and final section of his creative thesis. What did it all mean?

SECTION III. EVALUATION

The final section of the creative thesis in directing, designing or acting is devoted to an evaluation of the work accomplished and to the conclusions drawn by the candidate concerned. This is a challenging assignment.

In many respects the old maxim about "the proof of the pudding" is equally applicable to the creative thesis. The proof is in the performance. Obviously then, the candidate must ask the audience and the critics: "Did it work?" The candidate will want to watch and listen closely to the reaction of the audience at each performance. He will probably be able to estimate their general responsiveness, to tell whether the play was well or poorly received but how much more? He can and should clip the printed reviews of the play where these are available and put them in his thesis. But experience has shown that the local critic is not necessarily a final authority for estimating theatrical effectiveness and frequently is not capable of writing valid constructive criticism.

The writer of a creative thesis intent on an honest evaluation of his work is not faced with an easy task, but if he will ask himself the right questions and answer them as truthfully as he knows how, he can learn

quite a bit about himself and his work. First he should turn to himself and to the first two sections of his thesis. It is not enough that he ask himself: Did it work? He must ask: Did it work as I planned it to work? He must make an objective analysis of his accomplishments in terms of the goals established in the previous sections of his thesis. To use a gross example: If a driver sets out for Baltimore but ends up in Boston, he has not accomplished his purpose no matter how much his passengers seemed to enjoy the trip.

He must also ask if he really discovered the inner meaning of the play, the playwright's intent? Was the concept which he evolved to express that meaning a valid one, a good one? Were his techniques adequate and adequately handled? Or, to put it another way, did he have sufficient artistic sensitivity to discover the intellectual and emotional content of the play and enough technical skill to express that meaning through the materials and methods of his craft? The answers to such questions as these can seldom be a simple yes or no. He will have succeeded and failed in diverse ways and in varying degrees. He must examine his goals and his efforts, one by one.

But it is not necessary that he rely entirely on himself. There are others to whom he can turn to discover both the strengths and weaknesses of his work. He has a thesis advisor and perhaps a thesis committee, one or several of whom are presumably trained specialists in the field of his interest. In addition, the actor and designer should certainly consult the director of the production for which they were contributing artists. If the student approaches these people with the right attitude, provides them with sufficient information relative to intentions and objectives and then asks the right questions, he stands a rather good chance of providing himself with useful information.

On the basis of all available evidence the student should complete his creative thesis with an objective evaluation of what he has accomplished in light of what he set out to accomplish, as indicated by the previous sections of his thesis. He will then state his conclusions as unequivocally as his ego permits. If everything has not been perfect the student interested in the creative side of theatre should not despair, for as Chekhov reminded the fine young actress who was soon to become his wife:

Art, especially the stage, is a region in which it is impossible to walk without stumbling. There are before you yet a good many unsuccessful days and even whole unsuccessful seasons; there will be great doubts and immense disenchantments; but you must be prepared for all that, you must expect it, and, without looking aside, must stubbornly go on, fanatically bending it all to your will.²⁴

EXCERPTS FROM A CREATIVE THESIS

Experience has shown that many students can deal adequately with the production aspects, the practical procedures of directing, acting or de-

signing. They learn "how to do it" through a variety of textbooks, courses and experiences. Unfortunately, much of this training only teaches students how to do a particular thing as somebody else wants it done. Students frequently fail to learn what might be called creative analysis—the process which I have described as constituting the backbone of the preplanning portion of the creative thesis.

At this point, therefore, it seems advisable to concentrate on the analysis aspect of the thesis. The aim is to give the reader selective examples of the way in which one student's mind worked relative to a specific problem.

All of the excerpts quoted are taken from an unpublished M.A. Thesis entitled, "A Production Book of Brecht's *The Good Woman of Setzuan*," submitted to the Department of Speech and Drama and the Committee on Graduate Study of Stanford University by Nancy Elizabeth Langston, March 1953. Pages from which the quotes are taken will be indicated in parentheses following each quote.

Chapter I, THE THEATRE OF BERTOLT BRECHT, explains how Brecht developed his first theories of "epic" drama as a reaction against the excessive emotions of romanticism and naturalism; how he was caught up in Marxism and absorbed its dicta concerning "the necessity for scientific analysis of social problems" (p. 12); how Brecht and Piscator "developed a non-illusory style of acting, in which the actor made no attempt to 'live' his role, but only understand it, interpret it in its sociological relationships, and comment upon it" (p. 13). The chapter concludes with an explanation of how Brecht "at last arrived at a satisfactory integration of his epic techniques with truthful representation of human life" (p. 22) in his two parables for the theatre: *The Caucasian Chalk Circle* and *The Good Woman of Setzuan*.

Chapter II, DETERMINATION OF FORM, begins with "an attempt to evolve a working definition of comedy" (p. 25) and decides that:

Comedy seems to fall into two general types: that which arouses laughter primarily because the deviations are slight and give rise to a minor threat only, such as Shakespeare's romantic comedies; and that which treats the more serious follies and vices of men. As comedy moves from one pole of pure laughter towards the opposite pole of ridicule, it becomes increasingly an instrument of criticism and correction of the actions of men, and hence a means of instruction. . . .

A further differentiation can be made within the comedy of criticism. Some writers have accepted the social mores and customs of their times as being good, and have depicted the deviations from them as being worthy of criticism. To this group of writers belong the comic playwrights of the Restoration. Their plays contain an implicit acceptance of certain social ideals, from which individuals or types are seen to deviate. Other authors, however, have rejected the social ideals and customs of their times. Social ideas and practices are made the deviants rather than individual characteristics. These authors attempt to set

up a norm consisting of more universal ethical and moral concepts and to reveal the incongruity between the ethical concepts and the customary practices of the same society. Since a threat is raised against more permanent and important values in these comedies than in the first type, the element of satire is more pronounced, and the power of laughter gives way, to a great extent, to the power of ridicule. To this latter type of comedy belong the works of George Bernard Shaw and Bertolt Brecht. (pp. 28-29)

Then, under the heading of "External Evidence," the writer approaches the problem of determining the form of *Good Woman* through a comparison of Brecht's theories of "epic" drama with the definition of comedy which has been established. She concludes that the play "is comic in form and in the tradition of social judicious comedy" (p. 34). Form is next considered in light of "Internal Evidence":

More important in the determination of form than the evaluation of Brecht's theories and criticism of his own work is the internal evidence offered by the script itself. The comic pattern of norm and deviation from that norm is present in each constituent part of *The Good Woman of Setzuan* and determines its form to be comedy. The norm in this play consists of the ethics and ideals of a nominally Christian society: unselfishness, justice, love, honor, and the Golden Rule. The deviation is the actual practice in a society based upon competition, the practices of selfishness, avarice, dishonesty, resulting in and caused by hunger and degradation. Furthermore, the norm itself is seen to be ridiculous when measured against those values which, for Brecht, are most basic, the material necessities of life. The norm here is neither good nor bad in Brecht's eyes; he passes no value judgment upon the Christian ethic. He simply places the theory in juxtaposition to the practice, so that the ideals are seen to bear no relation whatsoever to the fact. His purpose is to argue that the practice of human beings, and the social structure which in his philosophy determines the practice, will have to be changed to be more in harmony with the ideals before our values can have any validity. . . . The major dramatic question in *The Good Woman of Setzuan* is: Will Shen Te finally succeed in being "Good," in living in accordance with the Christian precepts of unselfishness, love, honor, and justice? Shen Te is set up at the beginning of the play as the norm, which in the three major complications is ever increasingly threatened by various deviations from the norm. It soon becomes apparent, however, that Shen Te herself is a deviant, since she represents ideals which are unrelated to the facts of existence. The first complication consists in the threat to Shen Te made by a large family who deviate by being greedy, grasping, and covetous. They invade Shen Te's little shop, and would soon drive her to ruin. In order to meet this threat Shen Te assumes the disguise of an imaginary male cousin, Shui Ta, who represents from this time on the opposite deviation to her original character. He is completely practical and harshly equipped to meet all the demands of material existence, but entirely devoid of any of Shen Te's ideals. Her first gesture of self-defense is to rid herself of these vultures, an action which, though hard, is quite just. Here for the first time the ironic incongruity between Shui Ta's actions and the charitable impulses of Shen Te's heart is made apparent.

The second major complication occurs when Shen Te falls in love with Yang Sun, the unemployed pilot, a deviant whose insatiable and thwarted ambition leads him to complete amorality. With even greater irony, the love in Shen Te's heart leads Shui Ta now to an action which is not merely harsh, but dishonest and even cruel, for it is now she who is taking advantage of the good old couple who have lent her money to pay her rent. Yang Sun needs the money to procure a job, so Shui Ta gives it to him, instead of repaying the old couple. Finally, deserted by her lover, Shen Te discovers that she is pregnant. The crisis of this third complication forms also the crisis of the play. She sees a little starving waif on the streets, realizes that this could be her own son, and thus resolves to become Shui Ta for the third and last time, remaining in his disguise until she has gained a measure of security for the child she is about to bear. From this point the answer to the major question has become assured: Shen Te cannot succeed in remaining good. This is also the point of greatest disparity between ideals and actions, and the source of the most powerful irony. Shen Te in this scene, through her love for her child and by extension for all children, has become the symbol of universal humanitarianism. But her only recourse in order to save her child is to become thoroughly selfish and brutal to all others. This decision of Shen Te's comes dangerously near to a moral choice which would throw the action from the comic to the serious. Two factors, however, prevent this occurrence. In one sense Shen Te has no choice at all, for her only alternative is destruction of herself and her child, and in Brecht's materialistic philosophy this alternative is unthinkable. Furthermore, Shen Te does not debate the good or evil of her choice. She makes the choice without the full knowledge necessary to make her culpable. She becomes Shui Ta, because she believes that she has to in order to live, and thus her choice stays in the realm of the expedient, a means to an end: survival. (pp. 34-37)

After noting that the play bears a certain "structural resemblance to the comedy of Aristophanes" (p. 37), the script is then tested by the remaining five parts of the play, as analyzed by Aristotle. The chapter concludes:

This discrepancy between ideals and facts has been seen to exist in every element of the play, and the comedy rests upon the perception on the part of the audience of the incongruity. Consequently, the staging, the building of the characterizations, and the rhythm must be utilized by the director to keep this dichotomy constantly before the audience, which must be kept alert and objective through the correct use of the alienation devices. (p. 46)

Chapter III, DETERMINATION OF STYLE, does the same thing in terms of style that Chapter II did for form. "External Evidence" reveals that epic realism, the name selected to represent Brecht's type of theatrical production, "is a combination of realism and symbolism, which treats life as its subject, but which constantly reminds the audience that the reality which it is viewing is not the reality of life but of the theatre" (p. 50). The next section, which examines *Good Woman* through an *Internal Analysis* of the script, begins:

Brecht's aim, like that of the Naturalists, is to place an actual social problem upon the stage. It is the insistence upon scientific analysis, however, which distinguishes Brecht's thinking. He says: "The new sciences have brought about a tremendous transformation in our surroundings, and . . . tremendous possibilities for further transformation. . . . but the new approach to nature was not applied to society."²⁵ He attempts to apply the scientific method to society and to present the finding through art. Consequently, the object or action presented on the stage may bear no more visual resemblance to the object or action as it is seen in life, than the bit of protoplasm, seen under the microscope, bears to the organism as seen with the naked eye. He attempts to strip social phenomena of all unessential detail; to discover the real essence of the phenomena; to analyze it critically from every facet; to discover in as far as is possible the cause of the phenomena; and, finally, to communicate his findings to the audience, in whose hands lies the potentiality of change.

The social problem to be studied here is the conflict of poverty and goodness in a competitive society. The play is set up very much as is a scientific experiment. Certain subjects are selected; they are placed in a series of experimental environments into which certain stimuli are introduced; their reactions to each phase of the experiment are revealed. The spectators of an experiment remain aware of the fact that they are in a scientific laboratory, viewing living organisms which are real in themselves, but which have been placed in contrived situations, situations not natural to them, but which are intended to be representative of nature. So the spectators of *The Good Woman of Setzuan* must be made aware that they are in a theatre, viewing contrived events and characters which are representative of reality. But they must not be allowed to forget that what they are seeing is an experiment, and not life; for an alert and critical attitude must be maintained towards the experiment. The minds of the audience must be clear in order to relate the physical level of action on the stage to the symbolic level of thought in the parable. This mental action on the part of the audience parallels the relation of a single experiment to its interpretation in terms of its place and meaning in the body of knowledge to which it contributes. This analogy, which will be shown to be sound by an analysis of the play, is the basis for determining the degree and kind of deviation from verisimilitude in *The Good Woman of Setzuan*. (pp. 50-52)

Each of Aristotle's six elements of a play are now applied to the script in an effort to discover how the play deviates from verisimilitude. After making this examination the writer of the thesis summarizes:

It has been found that *The Good Woman of Setzuan* deviates from verisimilitude in its analysis of a social phenomenon in the same way that a microscopic examination differs from the form in which that phenomenon usually appears to us. All excess detail is cleared away; only the essence or basic characteristics remain. And yet this is realism: it is the realism of the laboratory and arbitrarily controlled existence, rather than the realism of nature; it is the reality of actors, and a stage, and a theatre, rather than the reality of real people in real situations. In order that the audience shall never forget this and lose their objective, critical attitude towards what is happening on the stage, the production must employ certain conventions which are distinctly non-

illusionistic, and which constantly remind the spectators that the actor is an actor, not a person, and the scenery is scenery, not a real place. Many of these conventions are inherent in the script: the use of blank verse, music, indicated pantomime, direct address to the audience. Others must be incorporated into the acting and directing. There are two clues to the nature of the conventions which are appropriate. The whole texture of the script is clean and beautiful in its simplicity, satiric, and yet filled with serious thought. Whatever symbols are used directorially, then, must be simple, clear, and meaningful. Furthermore, the parable is a Chinese legend. Brecht's purpose in choosing a Chinese story was two-fold. He believes that if the life portrayed upon the stage is too ordinary and familiar to the audience, it will be accepted by them without question; therefore, he removes the events on the stage from the experience of the audience, in order that they may be critical of them. He is not writing a play about China but a play about Western society, which is simply clothed in Chinese garb. He is also indicating his belief that conventions similar to those of the Chinese theatre would be effective in this play.

The Good Woman of Setzuan, then, is realistic in its use of the scientific method for the analysis of social problems. Yet we have seen that its very similarity to a scientific experiment deprives it of the illusion and verisimilitude usually found in the realistic drama. Since it combines realistic intent and individual moments of verisimilitude with certain conventions and a highly-developed symbolism, which impart to it a broader scope than the modern drama of the individual character, the style of *The Good Woman of Setzuan* may be termed epic realism. (pp. 62-64)

Chapter IV, CHARACTER AND CASTING ANALYSIS looks carefully at each one of the characters of the play. The method of attack can perhaps be seen most clearly by quoting an introductory statement relative to levels of characterization and a complete analysis of Shen Te, the central character in the play:

In *The Good Woman of Setzuan* probability is achieved for the characters, not through resemblance to real personalities, for verisimilitude is avoided in each of the six constituent parts, but rather through the organic relationship between thought and character. The element of thought is so dominant in the play, that the minor characters tend to be merely formal symbols of thought, and, consequently, are differentiated only on the lowest levels. There are four levels of differentiation in character. First it may be distinguished by physical and biological traits, such as sex, age, and size. Secondly, character may be differentiated through bent or disposition, which is revealed through the character's habitual and unpremeditated responses to stimuli. The third level of characterization, which is closely tied to the second, is the emotional pattern which determines the character's emotional reaction to any stimulus. Included on this level are the individualized wants, needs, and desires of the character. The highest level is that of deliberation and choice. Deliberation may be of two kinds: expedient, which does not involve ethical considerations and occurs on the level of the best means of action; and moral deliberation. As soon as the element of moral choice becomes dominant, the action becomes serious, so

characterization on the highest level rarely appears in comedy. With a few exceptions the characters of *The Good Woman of Setzuan* are differentiated on the two lowest levels. The individual characters will be discussed from the point of view of differentiating traits, level of characterization, and function in the thought-character-plot relationship.

Shen Te is the only character in the play who is characterized on all four levels, with the result that towards the end of the play she almost ceases to be a comic character, and the play tends to become too serious for the form of comedy. Brecht nowhere states any physical or biological characteristics for his characters, but they can be deduced from the other levels. Shen Te's age is immaterial; for she is young enough to be deeply and romantically in love, probably for the first time; old enough to have gained a degree of sound and earthy knowledge of the ways of a poverty-stricken world. She is attractive in a manner marked by humility and simplicity. Shen Te's natural bent is for the good, the loving, and the generous. Therefore, her first decisions to give the gods lodging and to give Mrs. Shin rice, as well as to shelter the family, are not choices following deliberation but merely her natural reactions to a stimulus . . . it doesn't require a decision on her part to treat them kindly. It is her disposition, and thus is still on the second level of characterization. The action she takes when she becomes Shui Ta for the first time, however, occurs on the third level. The drive for self-protection derives from the purely biological level, but when channelled into certain individualized situations, the drive becomes fear for specific things, in this case, for her shop and the hope it offers her of being able to do good in the world; and, thus, the drive is raised to the level of emotion, and gives rise to direct action, the assumption of Shui Ta's disguise. Throughout the play when Shen Te is Shen Te her good actions continue to be on the level of bent, simple and natural; moreover, as Shui Ta her actions also are simple habitual responses, only responses of expediency in this case; for if Shui Ta is seen to deliberate before committing an evil deed, even though all justification has been given the deed by the exploitation of Shen Te, sympathy is lost for Shen Te, for Shui Ta becomes a villain. It is only in the transitions, the incidents which cause her to assume the disguise, that Shen Te rises to the third level. . . . The Shen Te/Shui Ta character is inextricably bound to and symbolic of a concept of good and evil. If Brecht had accepted the traditional moral standard as valid, then Shen Te would be a tragic figure. Since, however, he considers the material needs of man as the only true basis for a system of ethics, and since Shen Te is acting in accordance with those needs, even though she is aware of the moral standard, she is prevented from being a tragic figure; for though she deliberates on the moral level, her action is necessary only on the biological level. The fact that she deliberates raises her to a stature not often achieved by a figure in comedy. . . .

The prime requisite in casting Shen Te is to select an actress who will convey to the audience immediately a feeling of warmth and simple friendliness. Yet she must be capable of great restraint and control of emotion. Most of the suffering which Shen Te undergoes is caused by externals, and emphasis is on the stimulus and the action which the stimulus causes in her, not on her inner psychological reactions. This emphasis upon the external necessitates a quality in the actress—an ebullience, a sweetness—which will gain the sympathy of the audience immediately, almost before she ever takes an action. This quality will

result partly from her ability to be warmly personal in her direct relations with the audience. There are a number of scenes, however—scene 3, the love scene with Yang Sun; scene 6, her betrayal at the altar; scene 7, the scene of her horror at the sight of the hungry child—in which she undergoes internal suffering. These scenes will exert power only if the actress is able to indicate deep emotion without unrestrained indulgence in it, since she must be in keeping with the rhetorical convention of the language. Finally, the actress must be sufficiently flexible to be able to flicker instantaneously from the Shen Te character to the Shui Ta character, or to drop them both in certain instances. This flexibility must include sufficient control and variety in vocal range and quality, that she can assume and maintain a slightly different vocal quality for the Shui Ta character. (pp. 69-74)

After examining each of the characters in the play the thesis writer says:

It is apparent that, with the exception of the few leading roles, the characters of *The Good Woman of Setzuan* are static and one-dimensional. They depend for their significance and for their comedy, then, upon the recognition by the audience of the place each occupies in the dichotomy between ideals and actualities which are the framework of the play. Each character has his own particular hypocrisy which illustrates the basic concept, and it is this hypocrisy which the director must lead the actor to find. (p. 86)

Chapter V, EVALUATION OF SCENES is concerned with a detailed analysis of the scenes in the play in terms of purpose and structure. The analysis of the Prologue is as follows:

The opening scene of any play has certain values peculiar to it. It must arouse interest, establish the form of the play, the style, and the mood. Wang's opening speech succeeds in accomplishing these functions. He steps out and addresses the audience directly, introducing himself, the locale, and revealing that the gods are expected. The unusual mode of direct address must shock and interest the audience, and establish for them the obvious theatricality of the play, its non-illusionistic quality. It must inform the audience that what they are about to view does not pretend to be "real life," but is parable which is going to be related to them partly through the use of conventional dialogue but also through direct narrative. Wang is established as the chief link between the audience and the play. He is going to be the story teller, the narrator, the interpreter of action. Finally this speech must indicate to the audience that this play is a comedy. The comic spirit must be communicated in the opening lines: "I sell water here in the city of Setzuan. It's a difficult business. When water is scarce, I have to go a long way to find any. And when it is plentiful, I am without income." The comedy here depends upon the recognition of the seriousness of the content of these lines—the universal problem of making a living—for it is this seriousness of content, formulated into simple and mundane phraseology, added to the absurdity of selling a commodity which is as basic and universally obtainable as water, which produces the comedy. These lines give the audience the clue as to the kind of comedy which they must ex-

pect throughout the play. It alerts them to be constantly aware of the double level upon which the play proceeds. . . . The major problem of the play is stated clearly and directly in Shen Te's speech: "I'd like to be good of course, but how am I to pay my rent?" The major dramatic question is inferred: Will Shen Te be able to continue to live in accordance with the ethical precepts of our society? The action of the play is concerned with trials made of Shen Te's "goodness," when she is faced with material annihilation. This scene, consequently, is not strictly part of the action level of the play; rather it forms, together with "A" scenes and the final scene, a narrative, explanatory framework for the parable.

The scene, however, does have an interesting and developing structure of its own. A series of minor questions are raised and answered in the scene: (1) Will the gods come, and will Wang recognize them? (2) After they arrive, will Wang be able to obtain a place for them to spend the night? The chief complication in the scene is introduced when Wang finally decides to ask Shen Te to take the gods in. Shen Te is expecting a gentleman, and she needs money to pay her rent, which is due the next morning. The major question of the scene, then, is: Will Shen Te send away the gentleman and take the gods in? Her decision to do so gives rise to the next question: How will she pay her rent? The scene is resolved the next morning, when the gods, as they leave, give her money and exhort her to "be good." The scene closes by raising another question: What will Shen Te do with the money? Will she stay good? (pp. 87-89)

With a careful and thorough preplanning such as that indicated by the excerpts quoted above the student working on a creative thesis is off to a fine start. He has made an honest and intelligent effort to understand the meanings that the playwright intended, the form in which the meanings were expressed and the style which will best translate those meanings and that form onto the stage, into the art of the theatre.

SELECTED BIBLIOGRAPHY FOR THE CREATIVE THESIS

Works which reveal the creative interworking of theory and practice, are so scarce as to be almost non-existent. Few directors have made prompt books of their productions available. Nor have many directors, actors or designers published anything like a cohesive account of the manner in which they attacked a specific production or role. Only a rare few offer real insight into the manner in which the production has evolved as a creative experience in theatre.

In recent years, a series of individual volumes has begun to appear which aims to reveal how the better French directors have analyzed and produced various masterpieces of the French theatre. Written in French the series bears the title: *Collection "Mises en Scène"* and is issued under the general editorship of Pierre-Aimé Touchard. Particularly to be recommended is: *Phedre de Jean Racine. Mise en scène et commentaires de Jean-Louis Barrault*. Paris: Éditions du Seuil, 1946.

Readily available to all are the two examples of Stanislavsky's produc-

tion plans that have been translated into English: *The Seagull Produced by Stanislavsky*. Edited with an introduction by S. D. Balukhaty. Translated from the Russian by David Magarshack. London: Dennis Dobson, 1952. *Stanislavsky Produces Othello*. Translated from the Russian by Helen Nowak. London: Geoffrey Bles, 1948. The annotation for each of these plays is so thorough and detailed that the volumes should prove almost equally valuable for director, actor or designer.

The student should also have a look at the published version of a Reinhardt Regiebuch or production manuscript: "The Miracle," Appendix I in *Max Reinhardt and his Theatre*. Edited by Oliver M. Saylor. New York: Brentano's, 1924. This wordless play is, of course, a somewhat unique example, but it does give some insight into the manner in which this famous director worked. The scene designs and costume plates will hold a special interest for students in those areas.

John Gielgud and Rosamond Gilder provide another form of production record which should prove valuable to the perceptive reader: Rosamond Gilder. *John Gielgud's Hamlet: a Record of Performance*. With notes on Costume, Scenery and Stage Business. New York: Oxford University Press, 1937. Actors, directors and designers will all find food for thought in this volume.

Less valuable, but still interesting are the two Eva Le Gallienne studies of Ibsen: Henrik Ibsen. *Hedda Gabler*. With a preface and a new translation of the play by Eva Le Gallienne. New York: New York University Press, 1955. Henrik Ibsen, *The Master Builder*. A new translation by Eva Le Gallienne with a prefatory study. New York: New York University Press, 1955.

One other work in the prompt book category deserves particular mention. This is Adolphe Appia's scenario for the staging of *Tristan and Isolde* which appeared as an appendix to his volume, *Die Musik und die Inszenierung*. Munich, 1899. The text is more readily available in a translation by Lee Simonson which appeared originally as "The Staging of Tristan and Isolde," *Theatre Workshop* (April-July, 1937), pp. 61-72. The same translation is included in Chapter IV of Lee Simonson. *The Art of Scenic Design*. New York: Harper and Brothers, 1950. Ostensibly this is a verbal light plot for *Tristan and Isolde*, actually it is far more. As Simonson notes on p. 62 of the *Theatre Workshop* article: "His [Appia's] visualization is so complete and specific that a director then or today could design and direct a performance of *Tristan* in all its essential details using the outlines indicated."

In the non-prompt book category there are several works which the student working on a creative thesis should find perceptive and stimulating. These include: Harley Granville-Barker. *Prefaces to Shakespeare*. Princeton: Princeton University Press, 1946-47. Hugh Hunt. *Old Vic Prefaces: Shakespeare and the Producer*. London: Routledge and Paul, 1954. John Northam. *Ibsen's Dramatic Method: a Study of the Prose Dramas*. London:

Faber and Faber Limited, 1953. Each of these three works analyzes plays in terms of meanings and effects which the playwright apparently intended, and suggests ways in which these meanings may be projected by the actor, director, and designer.

This brief bibliography may be concluded with the mention of two books which students working on creative theses in theatre should know. One of these is *Directing the Play: a Source Book of Stagecraft*. Edited with an illustrated history of directing by Toby Cole and Helen Krich Chinoy. Indianapolis: Bobbs-Merrill Company, 1953. Part III, "The Director at Work," contains brief excerpts from Stanislavsky's production book for *Othello*, Reinhardt's Regiebuch for *The Miracle* and Barrault's production of *Phèdre*, all of which are mentioned above. In addition it contains "Notebook for *A Streetcar Named Desire*" by Elia Kazan and "Some Preliminary Notes for *The Member of the Wedding*" prepared by Harold Clurman. These latter two are particularly significant as examples of the Stanislavsky system of determining the "spine" or main action of each character. The final suggestion is: Kenneth Thorpe Rowe, *A Theater in Your Head*. New York: Funk and Wagnalls Co., 1960. Rowe's book deals with many of the problems faced by the person working on a creative thesis in acting, directing, or designing. It concludes with the full text of a play and an accompanying analysis.

NOTES

1. The term "designing" is here meant to include responsibility for stage settings, lighting, costumes or make-up in the combination determined by the individual project or departmental policy. The creative thesis in playwriting is discussed in Chapter 6.

2. Some schools permit this type of thesis without the final performance step. Where this condition applies the candidate executes and reports his thesis as a theoretical production.

3. "Preface to *L'Amour Médecin*" in A. R. Waller, *The Plays of Molière*, in French with an English Translation and Notes, IV (Edinburgh: John Grant, 1907), 335.

4. Radio is not included in this discussion because this medium eliminates all visual elements and focusses entirely on sound. This factor would seem to exclude theses for the designer and actor. However, theses in radio script-writing and directing (producing) or some combination of these two would be feasible.

5. Harley Granville-Barker, *Prefaces to Shakespeare*, Series I (London: Sidgwick and Jackson, 1933), p. x.

6. For a discussion of some of the factors responsible for these differing results see K. S. Stanislavsky, *The Seagull Produced by Stanislavsky*, ed. S. D. Balukhaty, trans. David Magarshack (London: Dennis Dobson, 1952), especially pp. 20-33 and 68-84.

7. As quoted in David Magarshack, *Chekhov the Dramatist* (London: John Lehmann, 1952), pp. 13-14.

8. From a letter dated Sept. 15, 1903, as quoted in Magarshack, *Chekhov the Dramatist*, p. 264.

9. *Chekhov the Dramatist*, p. 42.
10. John E. Dietrich, *Play Direction* (New York: Prentice-Hall, 1953), pp. 202-05.
11. Harold Clurman, "The Principles of Interpretation," in John Gassner, *Producing the Play* with Philip Barber, *New Scene Technician's Handbook* (rev. ed.; New York: Dryden Press, 1953), p. 276.
12. Robert Edmond Jones, *The Dramatic Imagination* (New York: Duell, Sloan and Pearce, 1941), p. 89. For an excellent discussion based on Aristotle's six elements, see Chapter II, "On Drama: Analysis of Plays" in Hubert C. Hefner, Samuel Selden, and Hunton D. Sellman, *Modern Theatre Practice* (4th ed.; New York: Appleton-Century-Crofts, 1959).
13. Alexander Dean, *Fundamentals of Play Directing* (New York: Farrar and Rinehart, 1945), p. 354.
14. *Ibid.*
15. Clurman, p. 276.
16. *Ibid.*
17. Charles Vance prepared this statement for production conferences of the O'Neill play at Stanford University. As quoted in Hefner, Selden, and Sellman, p. 170.
18. Dietrich, p. 73. The whole of Chapter 6 is devoted to a discussion of "The Motivational Unit" and the manner in which it can serve as "the working segment of the director."
19. Constantin Stanislavski, *An Actor Prepares*, trans. Elizabeth Hapgood Reynolds (New York: Theatre Arts Books, 1950), p. 284.
20. Clurman, p. 277.
21. Stanislavski, p. 256.
22. *Ibid.*
23. Clurman, p. 286.
24. As quoted in Vladimir Nemirovitch-Dantchenko, *My Life in the Russian Theatre*, trans. John Cournos (Boston: Little, Brown, and Co., 1936), p. 203.
25. Brecht, "A Little Organum for the Theatre," trans. by Beatrice Gottlieb, *Accent* (Winter, 1951), p. 19.

CHAPTER 8

Creating Teaching Materials and Curricula

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INTRODUCTION

Many questions which arouse the interest of graduate students cannot be answered by a review of literature, or by engaging in research with the survey, historical, descriptive or experimental methods. As some students and teachers attempt to locate teaching materials and curricula for specific purposes, they frequently find that the information they seek is not available. They realize that the materials must be created. Sometimes a graduate student develops a desire to create his own teaching material or curriculum. This creative desire can be channeled into appropriate creative research if a systematic approach is used.

DEFINITION

In this chapter, creative research will be discussed as it applies to the development of teaching materials, equipment, and courses of study. The creative research process applied to these materials includes a detailed analysis of the situation in which the material is to be used, the establishment of criteria for the material to be created, and the creative development of the new material.

CIRCUMSTANCES FOR USING A CREATIVE APPROACH

There are three types of circumstances in which a creative approach to teaching or curricular problems may be used. These circumstances result from dissatisfaction with existing curricula, inadequacy of materials for specific teaching situations, or from an idea for an original approach to a situation.

A public speaking teacher, for example, may be dissatisfied with the usual course of study for the basic course. He may feel that the methods and sequence of speaking experiences required of the existing course of

study do not meet the needs of his students. He may envisage a new approach, and may decide to develop a new course of study.

A speech therapist may discover that teaching or therapy materials are not available for certain situations. Joanne Berarducci,¹ for instance, became interested in teaching children with voice problems to listen more discriminately to vocal inflection, quality, and emphasis. However, she was unable to find many stories or poems suitable for the specific voice problems of children. Therefore, she decided to create original stories emphasizing the discrimination of specific vocal characteristics.

Often, an original idea stimulates a creative approach to a situation. A theatre arts technician may have an idea for a new type of portable switchboard which can be built inexpensively. He may decide to develop this idea in a systematic way and present both the plans and a model of the switchboard as a new approach in stage lighting.

Two of the above circumstances recognize the existence of a problem. In the first instance, the problem is the dissatisfaction with the present situation. In the second instance, the problem is the inadequacy of materials for a particular situation. The third circumstance does not require the existence of a problem. There may be adequate materials and complete satisfaction with them. However, many individuals have original ideas which may vary and sometimes improve on a satisfactory situation. These original ideas can be developed fully through a creative approach.

The three types of circumstances in which a creative approach may be used, can exist at all levels of teaching, and in all areas of speech and theatre. A few of the types of creative theses which have been completed in colleges and universities are listed in the notes.²

PROCEDURES FOR USING A CREATIVE APPROACH

In general, the procedures used are similar to those used in any problem-solving situation. However, the major emphasis is placed on the creation of the solution to the problem.

Stating the Purpose of the Study. As with all problem-solving approaches, definition of the problem is essential. Definition begins with a thorough analysis of related literature for possible solutions to the problem. When the published literature does not reveal an appropriate solution to the specific problem, the purpose of the study, *i.e.*, the specific solution to the problem, and the situation or individuals for whom the solution is to be created, should be stated clearly. Jeanne O'Sullivan³ needed materials for auditory training for pre-school acoustically handicapped children. A review of the literature revealed that phonograph recordings were useful as one means of presenting amplified sounds to hard of hearing children. In addition, auditory discrimination of gross sounds (bells, drums, horns, etc.) was considered an important part of auditory training. An analysis of commercial phonograph recordings revealed none which provided

simplified auditory discrimination of gross sounds presented in a manner to meet the needs of pre-school deaf and hard of hearing children. Therefore, Miss O'Sullivan stated the purpose of her study as follows:

The goal of this study is the preparation of a set of recorded basic lessons in auditory training to be used with pre-school deaf and severely hard of hearing children. They are designed for the supplementary use of the trained teacher of the deaf, especially in group situations, and to be used as an instrument and guide for training the child's residual hearing at home.⁴

Byers indicates the specific purpose of his study by stating, "The purpose of this study was to devise a program which would make it possible to help all college students preparing to become teachers to develop the speaking-listening competencies all teachers need. The problem of preparing students to become teachers of speech was excluded from this study."⁵

A clear, concise statement of the purpose for which the created material is intended provides an important and necessary guide for a creative thesis.

Establishing Criteria for the Material to be Created. Before creating original material, the situation in which the material is to be used must be thoroughly analyzed. All pertinent information about the situation, and the persons for whom the material is intended, should be carefully compiled. Included should be information on the philosophy of the institution or school system, and any historical background related to the specific purpose of the project.

In planning "A Program of Speech for the College of Liberal Arts at Howard University," Elizabeth Reeves states that "consistent attention was given to the purpose of the institution, its practices in curriculum construction, the needs of the students, and programs of speech education in American colleges."⁶

Before developing practice materials for English pronunciation, Jeanette Lagaute analyzed the rules of pronunciation published in dictionaries and classified the variant spellings for each speech sound.⁷

Rose Smith's preliminary research "concentrated on a study of the different types of successful children's theatre, the statements by authorities in this field, and the local situation."⁸

Mary King combined the aims of speech and social studies "to provide unit work where productive satisfying learning could be enjoyed in a relaxed atmosphere, with the major emphasis by the teacher focused on social adjustment."⁹ Before developing the unit, she carefully analyzed the content of the social studies unit, the social adjustment problems of the children in her class, and the speaking and listening skills which could be taught appropriately in such a unit.

While developing "A Handbook for Public School Speech Correction," Dorothy Eckelman analyzed a variety of sources to determine the material to be included.

Materials were compiled by the following methods:

(1) perusal and inventory of the literature, including unpublished theses and state statutes; (2) correspondence with the United States Office of Education, state departments of education (particularly divisions of special education where these existed), and city supervisors of speech; (3) interviews with state and national supervisors and administrators; (4) visitation of public school programs and conferences with speech correctionists; (5) supervision and participation in public school speech and hearing surveys, and organization of new programs; and (6) inspection of available publications, equipment, movies and other materials.¹⁰

Since teaching materials, manuals and courses of study are designed for specific individuals or situations, it is obvious that the more a writer knows about the individuals or situations, the better the created material will serve their needs.

Creating the New Material. Creation of new material begins with only a general consideration of the criteria. Ideas related to the solution, but not necessarily directly appropriate for the criteria, should not be rejected at first. All potentially suitable ideas should be explored before an individual analyzes the material and revises it to conform to the criteria.

Many ideas will occur to the individual creating teaching materials or curricula. Each of these ideas should be developed fully as potentially useful material. To reject an idea before developing its potential is to stifle creativity. In fact, the very process of creativity tends to stimulate new ideas and approaches. Each new idea leads to more ideas which may apply to the situation. Therefore, the time to select certain materials and reject others occurs after all possible solutions have been explored. Then, the most appropriate of the new materials can be refined to meet the needs of the situations for which they are being created.

Suppose, for example, that a teacher of a voice and articulation course were dissatisfied with the practice material in available textbooks. He has an idea that a wide variety of situations should be used in contrast to traditional drills and oral interpretation materials. He feels that unified paragraphs might be more beneficial than isolated sentences for articulation drills, and the paragraphs should be concerned with a wide variety of subjects of interest to college students. He suspects that prose passages containing conversation could be developed on timely topics, but focused on specific vocal skills. He has observed that certain public speaking, role playing, and informal dramatic situations can be structured to bring about changes in vocal inflection, volume, and voice quality. In order to create these new teaching materials, every idea will have to be developed to the limit of the teacher's creativity. Only then can the teacher be satisfied that he has created the best materials of which he is capable.

Creativity can be enhanced if actual teaching situations are available for trial reactions during the creative process. Gryszowka and Hajian¹¹ used continual trial in their classrooms before completing the final scripts of seven plays for children. They wished to develop plays for oral reading in which children of varying reading ability could participate. They estab-

lished the criteria that each play would be written on topics of interest to the children, that the vocabulary of any one character in the play would be controlled at a specific reading level, and that four reading levels (pre-primer, primer, first-grade, and second-grade) would be included. After preparing the preliminary scripts, both teachers used the plays in their own classrooms. The final scripts were prepared after observing the reactions of the children who dramatized the preliminary form of the plays. Although trial situations should be used whenever possible, there will obviously be many instances in which trial use of material during the creative process is not possible. However, it must be emphasized that many universities require trial of the material under controlled experimental conditions when a creative project is submitted as a doctoral dissertation.

Preparing the Final Form of the Created Material. When all ideas have been fully developed, the created material should be analyzed in relation to the criteria which were established originally. Careful examination and application of these criteria will aid the writer in his selection of the most appropriate materials for the situation. At this point, some of the material will be rejected as unsuitable to the main purpose of the material, and some of it will need revision to meet the needs of the situation more effectively. When this application of criteria and revision are completed, the material can be written in its final form.

In its final form, the material should be presented specifically and in detail. Sufficient detail should be used so that others may use the newly created course of study, story or apparatus.

Dempsey, for example, indicates that "the design and development of an electronic-photographic circuit for recording the fundamental frequency of simple or complex speech signals is described."¹² The dissertation includes a detailed description of the apparatus, and instruction for its use.

Joanne Berarducci¹³ and Ilda DiMascio¹⁴ not only include their stories but present suggestions for using the stories in specific classroom situations.

Margaret Servine summarizes the content of her textbook in oral reading for secondary schools.¹⁵

Chapter I, the introductory chapter, is planned to interest the student in the book and explain what oral reading is. . . . The factors involved in developing oral reading abilities are discussed. . . . Chapters II through VI inclusive are organized around the various skills that are basic to effective reading aloud. Each chapter has two main divisions, the first devoted to discussion and illustrations of how a specific skill can be used to help a student gain an understanding of a selection for himself, and the second concerned with a discussion and illustrations of how he can use this same skill to help him give meaning to his listeners. . . . The book has a wide variety of selections for oral reading, most of which are taken from modern writers.¹⁶

The creative material should be described so that the relationship to the established criteria is evident to the reader. Elise Hahn¹⁷ in describing a

speech curriculum for the elementary school child, analyzes the speech act into seven steps and then gives suggestions to the teacher for each of the seven steps.

Samuel Elkind¹⁸ in describing the applications of principles of learning to rehearsals, lists each principle separately, and immediately after a discussion of the principle, presents an example of its application in rehearsals of a play.

Courses of study should indicate such items as objectives, activities and materials. In recommending the grade placement of speech activities, Mardel Ogilvie¹⁹ indicates the specific aims for each grade level. For each aim, the speaking activities, and the language growth of children for each age level are described.

In outlining a course in dramatics, Evelyn Konigsberg²⁰ includes the purpose of the course, indicates the sequence of units, and outlines the content of each unit. Students preparing courses of study as creative theses may use this outline as a guide but should present the course of study in detail.

Althea Howard's²¹ course of study provides specific lessons for each group of consonant sounds and each vocal skill. Each lesson contains the general and specific objectives, a complete list of the poems, stories, and activities used, and step by step procedures for developing the specific objectives. Suggestions are made for correlating the speech lessons with other classroom subjects, and materials are suggested for follow-up lessons. The lessons are arranged in the sequence in which they would be presented in an average classroom. For teachers interested in correlation within a unit, a complete unit on transportation is presented.

One of the lessons included in Mary King's²² social studies unit is presented in complete detail in Pronovost, W., *The Teaching of Speaking and Listening in the Elementary School*.²³ The lesson illustrates the statement of objectives, the listing of materials, the teaching procedure, and evaluation questions for use by the children. The teaching procedure is described by means of dialogue between the teacher and pupils, in which all of the questioning procedures and problems in teaching are illustrated. The use of an outline method of presenting lesson plans is illustrated by Karl Robinson²⁴ in the nine lessons suggested for "A Unit on Language for Use in a First Course in Speech."

It is not possible, in this discussion of the creative approach, to present detailed examples of all the different forms in which the newly created material can be developed or presented. Many samples of created material will be found by a student as he reviews the literature related to the purpose of his thesis. Books and periodicals, while not necessarily describing a creative research approach, contain numerous examples of all types of creative material. Having established the purpose and the criteria for the material to be created, the related literature should be restudied for its value as a model. The literature will provide ideas for content, organiza-

tion, and literary style. These can be useful guides as the student develops his own approach to presenting his material clearly, vividly and in complete detail.

STRENGTHS AND LIMITATIONS

Creative research encourages fresh, interesting and ingenious solutions to a problem. Its major strength is provided by the opportunity to be creative. The created material becomes the most important result in the process.

The creative approach encourages the user to explore and expand new ideas. It is free from the rigid controls and restrictions of some other methods. The use of criteria should not be considered restrictive. Any creative research is strengthened by the extent to which criteria can be established. Analysis to determine criteria frequently stimulates further creative solutions. Evaluation also strengthens the creative approach by providing suggestions for desirable revisions or additions.

The greatest limitation of the constructive method is its subjectivity. It is usually the creative product of one person, subject to all the biases as well as attributes of the creator. At best, it can only be considered *one possible solution* to a problem. Even when criteria can be established, it may not be possible for the created material to conform to all of the criteria. In addition, most created material is designed for situations in which many variables are present. It is rarely possible to control all of these variables, either in creating the material, or in evaluating its effectiveness.

Despite its subjectivity, creative research can make outstanding contributions to new and different solutions to a problem. In fact, the creative approach is frequently the first step in a sequence of solutions which may eventually become objective and suitable for experimental analysis.

PERSONAL CONSIDERATIONS

The primary personal consideration in any decision to do creative research is creative ability related to the type of material to be created. Creative writing ability is essential when original stories or plays are to be developed. Curriculum construction requires ability in planning and organizing. Creative technical ability is necessary when models or new apparatus are to be designed.

Usually, the first indication that a creative approach should be considered occurs when an individual has "an idea" for a new approach to a problem in which he becomes interested. Interest in a problem, an "idea" for a possible solution, and appropriate creative ability, should lead an individual to consideration of creative research. In addition, experience

with the type of material to be created, or in the situations for which the material is intended, is desirable.

A decision to engage in creative research should include a realization that some analytical disciplines are required. An individual using a creative approach must apply some analytical procedures in establishing criteria. For some individuals, the application of objective techniques is difficult. Creative research requires, however, the discipline of objectivity in a primarily subjective process. The strength of a creative contribution lies in the willingness of the individual to use analytical procedures as stimuli to his creativity.

AN EXAMPLE OF A CREATIVE STUDY

The dissertation of M. Marie Bresnahan²⁵ and the subsequent publication of an album of records²⁶ illustrates the complete creative process in the development of teaching materials and curricula.

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Purpose of the Study

The purpose of this study is to develop a series of recordings for use in auditory training for reading readiness and speech development in kindergarten.

Rationale and Explanation

Miss Bresnahan was impressed with the fact that auditory training was an important phase of the teaching of reading and speech as evidenced by an analysis of previous research studies. She was also impressed with the interest of children in listening to the many commercially available recordings of songs and stories. It occurred to her that recordings might be used as a teaching device in developing auditory discrimination of sound elements in words. Since commercial recordings for this purpose were not available, she decided to create her own recordings.

Criteria for Creating the Recordings

Through a review of related literature, observation of children, and experience as a kindergarten teacher and reading consultant, Bresnahan was able to establish the following criteria for creating the recordings:

- 1. The content of the recordings Careful selection of content according

Outline of Study

would involve subjects which are of interest to kindergarten children.

2. The materials would include games, songs, rhymes, stories, finger plays, etc., which would interest kindergarten children.

3. The activities listed in 2. (preceding) were also chosen so that the children could participate as they listened to the recordings.

4. Published vocabulary lists were used as guides in determining the vocabulary to be used in preparing the scripts.

5. Each recording in the series would be devoted to a specific consonant in the initial or final position of words or vowels in rhyming words.

6. Each recorded lesson in the series would require approximately five minutes of listening time.

7. The consonants and vowels for which lessons were developed were determined from a speech rather than reading point of view.

Rationale and Explanation

to children's interest would result in increased motivation for learning.

The variety of materials would increase the interest and attention span of the children.

It was felt that participation in singing with the record, answering the narrator's questions, imitating words, and using finger plays with stories, would reinforce the listening skills being developed, as well as being necessary for speech practice by the children.

It was necessary to use words that children of kindergarten age would understand, as well as to relate the vocabulary of the records to the vocabulary of typical reading readiness programs. This criteria is based on a review of current practices in teaching reading and speech, where lessons are devoted to specific sounds, according to the location of these sounds in words. This criteria was developed somewhat arbitrarily, but with the realization that five minutes provided sufficient time for intensive emphasis on a specific speech sound, but was a brief enough time to be within the attention span of the children for whom the recordings were being designed.

Analysis of research on auditory discrimination revealed no specific order in which consonants should be taught. However, it is well established that there are certain speech sounds which all kindergarten children articulate accurately, while there are other specific consonants which many kindergarten children have not learned to articulate accurately. Therefore, a portion of the series of lessons was

8. It was decided that an experienced kindergarten teacher with an excellent speaking voice would be used as narrator instead of a professional actress.

9. The length of pauses on the recordings to permit children to participate was determined by observing the time required of the average child in responding to a trial lesson.

Creating the Recordings

Complete scripts for each lesson were prepared according to the criteria stated. A series of twenty lessons were required to include the speech sounds listed in the criteria. The recordings were made on tape first and then transcribed to acetate disc for trial use.

The series of twenty recordings were actually used by children in kindergarten classes for a ten weeks' period. Each lesson was heard by the children on two consecutive days.

devoted to consonant sounds which children could articulate accurately in order to provide successful speaking experiences at the outset. The next group of lessons was devoted to many of the consonant sounds which kindergarten children misarticulate, with the objective of guiding speech development. The last portion of the recordings was devoted to lessons on vowel sounds in rhyming words, since a reading readiness program requires attention to discrimination of vowels as well as consonants.

This decision was made because the kindergarten teacher was able to use a style of speech which was highly appropriate for kindergarten children, while some professional actresses had a tendency to "talk down" to the children.

This was required so that the average child would have adequate time to respond, avoiding excessively long periods of silence on the recordings.

Recording on tape is now standard procedure prior to transcribing on disc. It is more economical to use tape recordings. Corrections can be made in small portions of a recording instead of re-recording an entire disc.

This trial use made possible the observation of children's reaction to the recordings. Teachers made comments and suggestions.

Outline of Study

A controlled experiment was designed to determine the effectiveness of the recordings in teaching auditory discrimination to children. In one Massachusetts city, twelve kindergarten teachers, who taught both morning and afternoon groups of children, agreed to use the recordings with their morning groups, the other half with their afternoon groups. Thus, the recordings replaced the regular teaching in the experimental groups for about half of the usual teaching time.

Reading readiness tests were administered at the beginning and end of the experimental period of ten weeks. Emphasis was placed on analyzing the auditory discrimination ability of children in the experimental and control groups. On the basis of the pre- and post-tests, it can be stated that "The recordings are as effective in ten minutes a day as are current, approved teachings techniques."²⁷

The recordings were significantly more effective than current, approved teaching techniques with children who had very poor auditory discrimination ability.

The results of the study indicated that the recordings were sufficiently valuable to warrant publication by a leading publisher of children's textbook materials.

Rationale and Explanation

Experimental trial may be desirable but is not always essential. Created material should be valuable in its own right. However, some graduate schools require experimental evaluation of created material, more so at the doctorate than the master's level. The institution at which Miss Bresnahan's doctorate study was completed does require objective evaluation of any created material submitted as part of the doctoral dissertation. Many different types of objective evaluation might be used. These methods are described in other chapters of this text.

The trial use and experimental evaluation of the recordings revealed that they were highly useful. A publishing company expressed an interest in the series, so revisions were undertaken. In addition, the trial use suggested that the recordings would be valuable as auditory training for speech development as well as reading readiness.

Outline of Study

Preparing the Final Form

In final form, the recordings include sixteen lessons of five minutes in length, recorded on three ten-inch records at $33\frac{1}{3}$ RPM.

Detailed scripts were prepared from which tape recordings were made, edited, and processed through standard procedures for producing commercial recordings.

The recording for the initial consonant *m* includes:

1. Music of a hurdy-gurdy
2. Story of "Madcap the Mischievous Monkey" with sound effects.
3. Children are asked questions about story. All answers use words beginning with *m*.
4. Children hum along with hurdy-gurdy.
5. Children are asked to hum and feel sound in nose. They are told that the humming sound is used in many words, such as "monkey."
6. Children asked to repeat *m* words after teacher.

Rationale and Explanation

A speech authority was added as co-author and the publisher assigned a reading editor and music editor. The revisions were undertaken by the authors, in consultation with the editors.

The reduction from twenty to sixteen lessons was made because observation during the trial indicated that the objectives could be accomplished with fewer different recordings. The children were so interested in the recordings that they would listen to many repetitions of the same records. Also, the experimental testing revealed that improved auditory discrimination occurred for speech sounds not included in the teaching lessons.

7. Children asked to imitate animal sounds such as "moo" and "maa".

8. Children asked to listen to a series of words and clap whenever "you hear a word that does not begin like monkey".

9. Children listen to song "Muffin Man".

10. Children answer question about *m* words in song.

11. Children sing song along with recording.²⁸

A teacher's manual was developed which included general instructions, plus specific suggestions for follow-up lessons for each recorded lesson. The manual was bound into the album cover.

It was necessary to provide teachers with an understanding of the basic philosophy upon which use of the recordings was based and of the rationale of the sequence in which the speech sounds are presented. It was also realized that follow-up teaching for each sound would be required. Therefore, additional classroom activities were suggested. Also included were specific suggestions for dealing with specific speech difficulties, since the recordings would provide only a beginning for longer periods of instruction which the teacher would have to provide.

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The complete creative process described here resulted in publication of new teaching materials to be used in a systematic course of study. While most created materials will be presented in dissertation form, every author will entertain the hope that these materials will be useful to others. In this way, the creative project has made its contribution to improved teaching techniques.

EVALUATING CREATED MATERIALS

Readers of creative studies of teaching materials and curricula are usually interested in the usefulness of the materials in their own situations, or in using the procedures of the studies as guide in preparing their own materials. Critical evaluation of creative studies will involve an analysis of

the extent to which the studies followed the general procedures outlined in this chapter.

Questions which a reader might ask are:

1. To what extent did the writer define and delimit the purpose for which the materials are intended? Is the purpose clearly stated?
2. Did the writer establish criteria for the development of the materials? Are the stated criteria inclusive of all criteria which should be applied to the specific situation?
3. Does the created material include provision for all of the stated criteria?
4. Does the created material contain new, imaginative approaches to the situation for which it was designed?
5. Was there any trial use of the proposed materials prior to preparation of the final form? (Trial use is desirable, but not always practical).
6. In its final form, is the material presented clearly and specifically so that others may use it?

Readers of creative studies must be constantly aware of the subjectivity of the entire process. The readers, as well as the writers, will be subjective in their evaluation of the materials. It cannot be emphasized too strongly that created materials can only present *one possible approach* to a situation. A writer's creativity cannot encompass all of the ideas and problems which might occur to a creative reader, no matter how extensive and inclusive the original criteria were. Therefore, it is important that the reader evaluate the created material in terms of the purposes and criteria *stated by the author*.

The real test of creative studies of teaching materials and curricula is the extent to which the reader is stimulated to use new and varied approaches or to become more critical of his own methods of teaching.

SUMMARY

Graduate students who desire to create a solution to a problem will use a systematic approach in their creativity. After a thorough review of related literature, the specific purpose of the created material will be clearly identified. Criteria for the development of the material will be established. These criteria will include consideration of the individuals and situations for whom the stories, curricula, equipment, etc., are intended.

The criteria will be used to stimulate, but not restrict creativity. An important part of the creative process lies in the freedom permitted for exploration and expansion of all potential solutions to a problem. Exacting application of the criteria should not be attempted until all creative ideas have been fully developed.

Wherever practicable, trial use of the created material should be attempted prior to revision and preparation of the final form. The final form

of the materials should be presented with enough specificity that they will stimulate creative use by other teachers.

Graduate students with creative ability can make significant contributions to the development of teaching materials and curricula if they will combine their creativity with a careful analysis of the situations for which the materials are to be created.

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CHAPTER 9

The Empirical Approach

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INTRODUCTION

Scientific or objective investigation. Scientific methods developed, comparatively recently in man's intellectual history, to supply answers and information not provided by other methods of investigation. Scientific investigation supplements and enriches man's scholarship and the knowledge accumulated by other disciplines; it is an additional tool for research, never a substitute for another method. Basically, modern scientific observation grew out of the increasingly apparent disagreement between the knowledge and predictions obtained from authority, tradition, and reasoning, and the actual events of the world and its life.

The essence of the scientific method is *observation*, the watching, recording, counting, and measuring, of structures and processes. In making his observations, the scientist aims first of all at description of the structures or processes he is studying, recording the observable and measurable characteristics and actions. As data accumulate and are organized, relationships and sequential occurrences appear and are clarified. Thus continuing observation leads from the primary aim of description and understanding to the realm of prediction and, ultimately and finally, to control.

As formalized for efficient research, scientific methods involve various activities undertaken in sequence. These parts or "steps" are described somewhat differently by various writers, but all statements indicate an essential and characteristic procedure. All scientific research starts with a problem or question, usually stated as a hypothesis to be tested. Unless done earlier, the investigator then proceeds to search the literature of his field for all available information concerning the work of others, their techniques and findings. With a carefully stated hypothesis and the pertinent knowledge of his field, the scientist moves to his major research by planning the nature and conditions of his observations. This research or observational "design" or plot observes all precautions for the objectivity and accuracy of his observations, and consequent validity and reliability of his obtained results.

Following the observations and the accumulation of the data, the resulting information is classified, organized, and summarized to establish or refute the hypothesis which was the basis of the investigation.

The accuracy and trustworthiness of that knowledge are determined, ultimately by agreement between either or both, various observers or repeated observations. Since all phenomena subject to scientific study are observable, this test of agreement among observers not only represents the final validation of scientific knowledge, but represents also a form of assurance of accuracy existing, only to a limited extent or not at all, in other methods of investigation.

The sources of the observational data may be long-existing structures or those which have but a fleeting moment; the fossil of the trilobite and the fleeting deuterium atom are both to be noted and described. The observations may be focused on processes which seem to be relatively continuous and unvarying, such as planetary orbits or the metabolic processes of living forms, or on those which seem but transient, as the fission of the atom or the maximum displacement of a vocal band.

Similarly, in speech, as in all human behaviors, some phases of the observable activity are amenable to control and repetition by the observer; others obviously are not. Acoustic stimuli may be controlled for observations of reactions to differing frequencies, intensities, and phonemes, a standard speech may be varied in organization or content, and in the manner of its presentation. Any attempt, however, to make one discussion—as a discussion—repeat, or vary by known amounts from another would so change the nature of the process under observation as to nullify the resulting data.

The scientist may employ either experimental or empirical observations to add to the store of human knowledge. In either procedure, he follows substantially the same steps to the same goals, observes identical cautions for accuracy and objectivity of observation, demands equal assurances of the reliability and validity of the obtained data, with the final acceptability of the new knowledge dependent on agreement between coincident observations. The choice of the specific procedure depends first, on the purpose of the investigator and the hypothesis to be tested, and, second, on the nature of the structure or process to be observed.

DEFINITION

The term *empirical* is used, even among scholars, with two diametrically opposed meanings. One meaning of the term involves careful and detailed observation; the kind of observation and recording of facts that we habitually think of as representing the care and meticulous work of the best of science. The other meaning of the term is the direct opposite, and refers to personal recollection of experience, armchair-philosophizing, and even quackery. Needless to say, the first-mentioned meaning of the term is the concern of this chapter.

As used here, empirical research is defined as that study which occurs when the operation of a speech phenomenon is in no way restricted, but the method of observing the phenomenon is carefully controlled. Though perhaps somewhat oversimplified, the distinction between empirical research and experimental research is this: if the speech phenomenon can be precisely controlled and reconstructed with known variations, the research is experimental. If the speech phenomenon cannot be precisely reconstructed, but has been accurately and carefully observed in its original occurrence, the research is empirical.

This rather precise definition of the empirical method has been presented because of the extreme usefulness of this method for objective studies in speech. There is nothing sacred about the term; the values lie in the appropriate use of a recognized procedure, regardless of the name it may be given. Some writers do not use the term, though recognizing the area of research. Not infrequently, the type of observation described in this chapter will be designated as "descriptive research". "Descriptive research," broadly defined as a survey or normative approach to the study of conditions, covers a wide range of types and conditions of observations and the collection of data. The purposes of various investigators may range from meticulous observation with due safeguards for validity and reliability and for ultimate agreement among observers, to casual fact finding. In general, descriptive studies gather information and summarize it; the investigator selects his data from a certain area of interest and subjects these data to such counting, classification, or other analytical or grouping procedures as will allow for summarization or interpretation adequate for the purpose of the study.

Within the broad coverage of the "descriptive method" may be included not only the empirical and experimental methods, but also the "survey" and the "case study method", as these are described in other chapters of this text.

Because of the multiplicity and variety of problems occurring in the field of speech, the range and productivity of research is furthered by discussing these forms of the descriptive method, the empirical (Chapter 9), experimental (Chapter 10), survey (Chapter 11), and case study (Chapter 12), in separate chapters. Each serves a given purpose, involves its own procedures, and relies on its own assurances for the trustworthiness of the derived knowledge. In practical research, two or more of these methods may be combined; frequently they merge so that exact boundaries are difficult to define.

With both the empirical and experimental methods, the processes or structures are observed immediately by the scientist; or are recorded and preserved in such a way as to make reproduction possible as on tape, film, etc.; the data are summarized in terms of information concerning the observed structure or phenomenon. Further, these two methods require the type of hypothesis to be tested, the investigative procedure, and the final demonstration of reliability of the findings to be structured within the recognized limits of scientific inquiry.

TYPES OF PROBLEMS OR QUESTIONS BEST ANSWERED BY EMPIRICAL RESEARCH

Empirical research techniques have been used in each of the fields into which speech research is commonly sub-divided; fundamentals, television and radio, public address, interpretation, theatre, speech and hearing disorders, and speech education. Indeed, as Simon points out, in addition to its widespread use for types and varieties of speech performance and attitude studies, "it is (also) the method we use, or should use for collecting data on audience reactions, shift of opinion or incidence and type of speech deviations" . . . (or) "when we observe discussion groups or analyze transcripts or recordings of discussions, when we watch our classes, study speakers in action, or tabulate box office returns or Hooper ratings."¹

If you, as a graduate student, have questions concerning the speech development of children, or the relationship between age and grade level and the topics of their conversations, samples of their speech and general conversation could be collected, probably phonographically, under appropriate conditions. Study and analysis of these samples would lead to the establishment or disqualification of the hypothesis which the study was designed to test. Or, by those interested in public speaking, empirical studies may be used to reveal the behavioral aspects that lead to audience judgments of sincerity or the lack of it, directness of discourse, "conversational quality," sincerity or simulation. What television programs are most watched in a given area?, or What is the relative percentage of listeners or viewers tuned in to one of several stations in a given area? are representative studies relating to television.

ADVANTAGES AND LIMITATIONS

Advantages. One characteristic of all good research studies, including empirical, is a systematic and impartial method of collecting information. However, the difference between empirical research and other methods, as far as the collection of information is concerned, lies in the collection and recording of data from direct or indirect observation of phenomena as they exist or occur at the time, without attempting to control or modify the phenomena themselves.

This difference accounts for at least four distinct advantages of empirical method when contrasted with non-scientific methods.

Valid and reliable measurements. One major advantage of the empirical method is its demand that controls be applied to the observations in order to secure results which are valid and reliable, as opposed to generalizations based upon haphazard and uncontrolled observation.

For example, suppose one wished to check the consistency of opinions expressed by individuals at the time of an interview with those expressed

after reflection. It is possible that we could, through introspection, recall our own behavior in such situations. We might also ask some friends and acquaintances if they were consistent in their beliefs as expressed in the interviews when compared with the beliefs they held after considerable thought.

From this information, which may or may not be reliable, we could then form some conclusions of our own. This would be the layman's method and might lead to the truth or it might not do so.

This same problem was of interest to Helen Huth.² She performed the research empirically in a manner which provided controls and hence, more reliable information.

Her technique was to test the differences under two types of interviewing conditions. In one type of interview the respondent was met at the door by the interviewer who queried him on a number of questions using standard interview techniques. In the second type, the interviewer presented the respondent with a list of questions to be answered. The interviewer called back the next day and the respondents' answers were recorded. A control group sample, referred to as the "non-deliberative" group, was also a part of the design.

The findings which Huth reported appeared to support the belief that time for thought before answering would produce differences. It is interesting to note that these findings, rather than resulting in a positive conclusion, led the researcher to decide that additional information was needed before the questions posed could be answered with assurance.

Study of complex phenomena. A second major advantage of the empirical method is that it provides for the study of many complex phenomena which experimental methods and controls might destroy. That is, by controlling and modifying the phenomenon itself, experimental manipulation may cause it to be different from what exists in actuality. There is probably much truth in the assertion that the more rigidly experimental controls are applied to the complex phenomena of speech, the less valid the results are apt to be.

As an example of how empirical method enables control of the observation, but not the phenomenon, consider Abel's study of the speech of six Southern University freshmen.³

In this study the observer wished to analyze phonetically certain expressions, but he wanted to do so without interfering with the spontaneity or normalcy of the speech.

In order to control possible sources of distortion, the responses on the items desired were obtained during individual conversations with the informants. Conversations concerned themselves with questions asked by the observer. Each question was designed to elicit a response including the desired expression. The subjects' contributions to the conversation consisted mainly of replies to and comments connected with, the questions asked.

As the result of controlling the observation without appreciably affecting the phenomenon, the author was able to study phonetically, the pronunciation used by the six subjects and complement the raw data of the Dialect Atlas of Louisiana.

Detailed descriptions. The empirical method is useful both for studying complex phenomena where large numbers of subjects are involved and also it is useful for describing in detail a single activity or program.

Many of the research projects we often refer to as case studies (see Chapter 12) are empirical in that they consist of systematic attempts to observe and collect information on a highly selective basis.

For example, Will reported a research study in which she made careful observations, over a six month period, of the personality development of a thirteen-year-old stuttering boy.⁴ In this study she carefully delineated the changes which occurred during the period of therapy.

A further example of how a single activity has been studied and reported is that of Black, who analyzed vowel quality of a single subject before and after an operation for an occluded nasal passage.⁵

In Black's study, as in others, the phenomenon itself was not controlled in any manner nor could the phenomenon be repeated. However, careful observation led to the collection of data which could be useful for further research or for making eventual generalizations.

Study of uncontrollable phenomena. The fourth major advantage of the empirical method is that it can also be used when control over a phenomenon is either impossible or impracticable. Since many phenomena do not lend themselves to control, studies of this type have frequently been made.

One such instance was the study done by Phillips of the factors of effective and ineffective conversation. Obviously, the nature of conversation would preclude any set pattern or control and since conversation has been variously defined and explained, Phillips sought what he considered to be "good conversation."⁶

In order to do this the situation was kept as normal as possible with pleasant and informal surroundings, and the discourse was allowed to go into any channel so that the subject could take the lead if desired. Naturally, for purposes of this study, control of the phenomenon would have been undesirable.

The procedure followed in quantifying the data was for each subject to hold a conversation with a member of the communications staff. The best and poorest conversationalists, as chosen by the staff members, were then given ratings by their closest acquaintances. Then conversations were held with those fifty students rated highest by their instructors and fellow students, and also with those fifty students rated as the poorest conversationalists.

In addition to the unstructured conversation, each subject answered

several questions about her background and wrote an analysis of a good or poor conversation in which she had participated.

Check-lists for good and poor conversations were drawn up and were completed by a large number of students on the basis of factor importance choice.

Analyses of both oral and written materials were made and statistical procedures were employed to determine the significance of differences between the two groups.

In another study, where the phenomenon being evaluated was attitudes, Peckarsky hypothesized that the development of the symptom of psychogenically delayed speech in children might be influenced by parent-child relationships.⁷

She further hypothesized that there may be certain attitudes and environmental circumstances related to the speech symptom.

Control of the phenomenon was, of course, impossible. In order to measure it she collected material based upon psychiatrically oriented interviews. This material was then rated on thirty variables of behavior rating scales and check-lists.

After appropriate statistical analyses the data collected confirmed both hypotheses and the generalizations were supported.

Finally, since the empirical method frequently does not require the establishment of comparison or control groups, and does not depend on the controlled repetition required for the experimental method, empirical study may be used to explore, scientifically, a new phenomenon or area of behavior, and thus establish hypotheses for later testing by more restricted and rigidly controlled observations of either the empirical or experimental variety. The history of scientific advancement is replete with examples of such "break throughs" in which new concepts and hypotheses have evolved from extensive empirical studies.

LIMITATIONS AND RESTRICTIONS

There are several disadvantages of empirical research which should be noted although they may, perhaps, seem so obvious as not to bear mention.

First, the nature of some speech phenomena is such that they cannot be repeated. Consequently the research plan must be ready to operate at the time the phenomenon occurs and this is not always possible. In any event, with a completely spontaneous occurrence the results cannot be checked and verified by repetition of the event.

Also, while the ideal empirical study is one in which there is no control over the phenomenon, but rigorous control over the method of observation, this condition is difficult to achieve. There is frequently the possibility of unintentionally controlling the phenomenon, or conversely, of imperfectly controlling the observations and thus biasing the results.

For example, Malone made an analysis and evaluation of phonemic

differences in the speech of boys and girls at the kindergarten, first, second and third grade levels.⁸ The data were collected by securing scores of phonemic frequency from tape recordings of spontaneous speech.

If these recordings had been secured from speech on suggested topics or from speech limited in any other way, the results may have been far different from those obtained. In all probability the phenomenon (the spontaneous speech), would have been altered.

A case from the past in which research work was not acceptable because of the interference with the phenomenon, concerned an effort to determine differences in "vocal variety" between subjects having had speech training and subjects who had not had such training. In an attempt to make these comparisons, each subject was asked to read a selection chosen by the person conducting the research. The results indicated the differences to be negligible. However, later research with similar subjects; this time using spontaneous speech on topics chosen by the speakers rather than the researcher, gave entirely different results.

Apparently what had happened in the first instance was that the phenomenon (the speech) had been influenced by the restriction placed upon the choice of material. It is also possible that the results obtained in the second instance may have been unduly influenced in favor of significant differences, by the free choice of subjects.

In either case, the conclusions would have to be limited to groups of the type involved and to similar materials under similar conditions.

By means of the empirical method, processes which are not amenable to the controls necessary for experimental study may be observed, and the data recorded as a basis for generalization and scientific explanation. In many areas, the description and understanding of processes thus obtained form a usable basis for prediction. And the significance and value of prediction based on scientific observation are obvious in many areas of speech. It should be remembered, however, that these predictions, resulting from empirical observations, are based on the establishment of a high degree of correlation between coincident or seemingly related processes and phenomena. A coefficient of correlation however marks the limit of scientific knowledge obtainable by the empirical method. To go beyond the demonstration of the coincidental relationships of two phenomena to a determination of causal relationships depends on the experimental form of the scientific method. Through empirical observations, the scientist may determine that A and B occur together when observations are made. But to establish that A is the cause of B, the experimental method must be invoked to show that B does not occur in the absence of A. Not infrequently, in scientific inquiry, high correlations obtained through empirical observation form the basis for an hypothesis concerning causality, which hypothesis may then be tested experimentally.

PERSONAL CHARACTERISTICS TO BE CONSIDERED IN USING EMPIRICAL METHOD

As a general rule, a person who likes to work primarily with living issues and contemporary material, unrestricted by artificial limitations, will find empirical research methods to his or her liking.

The physical and material requirements for empirical research are much as those for other methods. Financial considerations always play a part. Creative ability is necessary, but is of a different order than that required for writing or staging a play. One's academic strengths or weaknesses should undoubtedly be considered and while one can perhaps best assess this for himself, the counsel of advisors is also of help.

EXPLANATION OF THE METHOD

Which comes first, the problem or the design? Logically the problem should come first for if that is not the case one may attempt to fit the problem to a preconceived idea.

Regardless of the research method, the inquiry must begin with a formulation of the problem. Beyond this, however, procedures may vary even within the general framework of empirical research.

The explanation which follows is based upon a suggested outline which has been effectively used by many research students. You may wish to make your own modifications as you see fit.

Outline for an Empirical Research Project

- I. Formulation of the problem
 - A. Identification of the problem
 - B. Review of previous work related to the problem (if any has been done)
 - C. Statement of the problem
 1. Definition of necessary terms
- II. General plan for studying the problem
 - A. Determine purpose
 - B. Select means of measurement
 - C. Plan method of observation
 1. Establish the point of observation
 - D. Work out plan for analyzing data
 1. Objective analysis
 2. Non-objective analysis
- III. Collecting data
- IV. Evaluating data
 - A. Statistical procedures
 - B. Non-statistical procedures
 - C. Presentation of data—graphs, charts, visual aids

V. Summaries, Conclusions, Applications

A. Definitive answers

B. Qualified answers

VI. Appendices, bibliography

Detailed explanation of the outline:

I. *Formulation of the problem.* In formulating the subject for your research study you would be well advised to bear in mind these two suggestions: first, pick a topic which has not previously been thoroughly studied; second, since you will be living with your problem for some time, pick one that is interesting to you.

A. *Identification of the problem.* Finding the problem may be the result of your classwork, from discussions with your colleagues and teachers, from examining likely sources such as *Psychological Abstracts* or *Speech Monographs*, from a perusal of abstracts of theses, or from your own curiosity and inventiveness.

Compere, for example, wondered whether or not the alleged unpopularity of poetry is a fact.⁹ Going on from there she decided to find out why, if poetry was unpopular, such a condition existed.

In order to do this she determined by means of a Poetry-Attitude-Inventory, the attitudes of college freshmen toward their experience with poetry. The data gathered were analyzed in the light of expert opinion and resulted in information both as to the study of poetry and methods of teaching poetry.

B. *Review of previous work related to the problem.* Once you find a problem which interests you the next step is to review previous work related to it. (Refer back to Chapter 3).

How much review must be done depends upon the problem and upon you. For example, in a study in the area of speech pathology Graham pointed out that although otosclerosis had been discussed extensively in the literature, little had been written concerning the early stages of the disease process.¹⁰ Furthermore, otosclerosis had been reported to have strong familial tendencies.

Since this observation had been made, but apparently not proven through research methods, he sought to investigate the earliest effects of the otosclerotic lesion by examining subjects where the existence of otosclerosis was probable because of family history. This was done by comparing a group of normal blood relatives of otosclerotics with secondary nerve degeneration, to a small normal hearing control population, to a cleft palate population, and to a large normal hearing population from the National Health survey.

In so doing, the investigator controlled the observations by employing a case history questionnaire, an otological examination including tuning fork tests, and both air conduction and bone conduction audiometric tests.

Most notable of the main findings was that none of the factors frequently associated with otosclerosis, with the possible exception of tinnitus, ap-

peared to be markedly evident. Thus, the incidence of other commonly associated factors, such as a history of decay of deciduous teeth, bone fractures and blue scleras, was not statistically significant.

The Graham study also illustrates another point which should be noted; namely, that the findings of a study may either support the hypothesis, reject it (negative evidence), or provide inconclusive results. In the latter case all that can be stated is that the evidence indicates no generalizations can safely be made, but this does not necessarily invalidate the study.

C. *Statement of the problem (hypothesis)*. A good test of how clearly the problem has been identified is whether or not it can be stated clearly in two sentences or less. If you find you cannot reduce it to this simple form, it is well to consider it further.

There may, of course, be subsidiary questions which the research project will investigate, but remember that the evidence presented in the summary and conclusion portion of the study, must bear directly upon the statement of the problem in the introductory section.

Any problem to be investigated by the empirical method requires precise and exact wording. Since empirical study involves observation, the indicated processes and structures must be identified clearly and unmistakably; otherwise neither validity nor reliability of the data can be expected. Obviously, any attempt to study a non-existent process or purely conceptual phenomenon will produce fictitious data. Further, unless the method of measurement—whether it be direct observation or employ apparatus, test forms, scales or inventories—is known to measure what it is supposed to, the obtained results will be quite “happenstantial”. No matter how well they may yield to statistical treatment (which they may do occasionally), they do not constitute trustworthy knowledge. The empirical observer must know *what* he is trying to measure, and know *that* is what he *is* measuring.¹¹ Definitions that identify precisely the phenomenon to be measured, are the first, but only the first, step to validity. Definitions and descriptions of significant terms in the statement of the problem likewise influence reliability. If there be any question of the presence or absence, or the nature, or amount, of the phenomenon to be observed, measurements can be but guesses. Further, since the ultimate, though not always necessary, attestation of the trustworthiness of scientific knowledge lies in agreement among observers or between observations, the need for precise identification of the observed structure or process is apparent.

It is this need for precise definition which has led, in science, to the use of the “operational definition;” defining in terms of the operations performed in producing or measuring the phenomenon under investigation.

II. *General plan for studying the problem.*

A. *Determine purpose*. A good statement of the problem will usually serve as a statement of purpose as well, though the manner in which it is stated may differ.

For example, the problem statement might be:

Recently, critics of business speech training courses have questioned their carry-over value in actual business affairs. A method for determining their value would be helpful.

The statement of purpose might then be:

The purpose of this study is to test the carry-over value of training received in a business speech training course.

Or the statement of purpose might be:

The purpose of this study is to develop a method for determining the carry-over value of training received in a business speech training course.

Note that while either statement might well be the statement of purpose, the second would have broader application since it would seem to be useful in evaluating more than the single business speech training course being studied.

B. *Select means of measurement.* The yardstick is a criterion for measuring length; the thermometer for measuring temperature, and the I.Q. for measuring comparative intelligence.

In measuring the carry-over value of a business speech training course a measurement might be the number of promotions after training, period of time between promotions, pay raises, sales volume increases, amount of turnover, or some other standard.

Units of measurement must be established prior to gathering the data. Otherwise the research may result in a haphazard collection of meaningless information. Unless you knew in advance that you wanted to judge carry-over value by means of pay raises, for example, you might never think of seeking that type of information.

C. *Plan method of observation.* The establishment of units of measurement will assist you in planning the method of observation, for they will direct your efforts toward a means of collecting the desired information.

A case in point was the study of Reinertsen who wished to compare the actual broadcasts of a radio station with the criteria for judging broadcasting effectiveness, as outlined in the station's license application.¹²

Knowing what information he desired and having the means of measurement clearly stated, he planned a method of observation which would enable him to judge the performance. His method was to monitor seven complete broadcast days and keep an accurate log on operations and program quality.

In another study in the same area Fest examined the role of radio in the life of the farm operator.¹³

He wished to evaluate the extent and pattern of radio listening, the reactions toward available programs, and their attitudes toward the use of farm programs. Knowing this he was able to devise a method for interviewing seventy-two randomly chosen farm operators and thus obtain the desired data.

1. *Establish the point of the observation.* Speech is a complex process,

with the communicative behaviors frequently continuing for a period of time, and including a multiplicity of activities of one or more participants in the speech event. Obviously one cannot observe and measure the entire process; adequate precautions for validity and reliability require the observation to be made at a specific point in time or space. Therefore accurate empirical study depends on the specification, either in the statement of the problem, or in the research plan, of the focus of the observation. Specifically where and when will the measurements be made?

Scientific study of static structures, such as the bones of the skeleton, the size of an audience, present no need for special preplanning. Continuous processes, however, require selection of the point or points at which the observation will be made; the selection depending upon the data desired. The pitch of the voice, for instance, may be measured at a predetermined moment of the vocalization. By photographing or recording the sound wave, a series of measurements, each at a specific point, can chart the entire process on the basis of selected points or instances. By thus specifying a point, or a series of points of observation, valid and reliable empirical observations are possible of many aspects of communicative processes. The random movements of a speaker, the mis-pronunciations of an articulatory difficulty, the personal inter-action of a discussion group, indicate the scope of the possibilities. Such measurements, at successive predetermined points, may be organized and expressed in pitch-graphs, frequency tables, percentages, diagrams, or "sociograms".

Not only should the point or points of the observation be specified, but there is need to confine the generalizations to the era of the observations. One wishing to predict the behavior of an individual or a group in social situations, or under stress situations, or in contact with people of other races or religions, for instance, would achieve reliability by observing the behaviors within the stimulus situation for which he wished to establish the prediction. To generalize, by analogy, from one situation to another, or from one form of behavior to another, is hazardous.

D. Work out plan for analyzing data. There are, in general, two types of measuring instruments, objective and non-objective. The distinguishing feature is the presence or absence of statistical or numerical interpretations or the method of using statistical information.

Non-objective analysis is appropriate with data which does not lend itself to quantification, such as attitudes, opinions, feelings. For example, Markland wished to test "evasiveness" in speeches delivered during the 1952 election campaign.¹⁴ While it was possible to devise an acceptable definition of evasiveness, observers differed in their interpretations. Since this was true, Markland's analysis procedure involved two methods. First, the analysis of speech authorities and the researcher were compared; second, the researcher and graduate students in speech worked jointly in making comparisons.

Thus careful controls, even though no statistical procedures were in-

volved, were utilized in the problem design and in the analysis of the data.

Some types of data lend themselves better to objective analysis or can be well adapted for this purpose. When this can be done statistical procedures which indicate probabilities can be applied.

Suppose, for example, that Markland's purpose had been to determine the number of four letters words or the number of personal pronouns used by each of the speakers, rather than to analyze evasiveness. The determination could then have been quantified with ease and the significance of the differences could be proven by existing statistical techniques.

It is also possible that within the same study there may be some data which can best be analyzed objectively, and other data which cannot. A study which involved the relation of psychometric factors to stage fright illustrates this point.¹⁵ In this study groups of students were systematically selected for observation on the basis of having "most" or "least" stage fright—a non-objective process. A series of psychometric tests was then administered to these students and the results compared—an objective process.

A further illustration is contained in the study of Anderson, who worked with the elements of esophageal speech.¹⁶

He used for his purpose twelve laryngectomized subjects and then measured voice, air volume and abdomen and thorax movement. Vocal quality is largely a matter of subjective judgment, but air volume and abdomen movement could be measured with more precision and, hence, lend themselves to statistical computations.

III. *Collecting data.* If the problem has been clearly stated and a general plan thoroughly worked out, the gathering of data is largely a mechanical process. True, with non-objective data careful observation and judgments must be made, but if your plan is outlined in detail your chances of securing the desired information are good.

It is well to prepare alternative plans where there appears to be a likelihood of trouble in securing data. You may find it necessary to improvise or "settle for less" in some circumstances and if you do, be assured you are not the first to have done so.

In one instance, for example, as an important part of a larger study of the oral communication process within a manufacturing plant, a graduate student wished to evaluate the effectiveness of a sales presentation made to an employee group. He proposed to do this by administering a test based upon the sales presentation. After preparation of the test, the plant management decided that such testing might interfere in some undisclosed method and requested that it not be done. While this information would undoubtedly have been useful had it been obtainable, the remainder of the study was made and much valuable data about communication processes were collected. The study was a success despite the elimination of an important evaluative procedure.

IV. *Evaluating the data.*

A. *Statistical procedures.* A knowledge of statistical techniques can be of great help to the person seeking to interpret data gathered as the result of research procedures. However, one of the problems of the comparative novice is that the statistical analyses may prove to be inappropriate to the problem confronted. For this reason it is good practice for the researcher to seek counsel and guidance from one familiar with statistical usage.

Even with such simple statistical concepts as modes, means and medians, there is room for error. One common error, for example, is to associate the mean (or average as it is popularly known) with that characteristic or group of characteristics which is most likely to occur.

To illustrate this simply, consider the erroneous impression one would have concerning sermon length if he determined the mean length of sermons by averaging out four sermons of twenty minutes each, and one sermon of one hundred twenty minutes. If this were the case, the mean sermon length would be forty minutes which would not be an accurate statement regarding any of the five sermons.

The possibilities for error in statistical analyses are numerous, and increase with the complexity of the data interpretation so careful consideration should be given to the design of the study and to the statistical techniques employed.

While there are dangers involved in the use of statistics their use is not hopelessly intricate as it sometimes appears to one totally unfamiliar with these procedures.

A good beginning step for a student who hesitates to involve himself with statistics would be to examine an elementary statistics textbook such as that of Lindquist.¹⁷

As the next step the student might well take an elementary course in statistical methods and become familiar with the fundamentals. By that time the usefulness of statistical procedures as well as their relationships, should become more apparent. As you become more familiar with the uses of statistics you may wish to move on to more advanced techniques such as those described in Walker and Lev.¹⁸

B. *Non-statistical procedures.* Suppose you wished to make a clinical study of a single case in which your interest was in tracing the development of a speech phenomenon. Statistical procedures would be inappropriate since there would be no comparisons to be made nor relationships to be demonstrated. What else might you do?

One thing you might do is to read in this text, Chapter 12, which deals with Case Studies. Another thing you might do is to note how others have completed similar studies.

As one example you might wish to examine the research project of Leopold, who reported on one single phase of language learning; that of numerals.¹⁹

In order to do this he made observations over a four year period of the

learning experiences of his daughter, with particular reference to the intelligent use of numerals with their logical meanings as distinguished from mechanical reproduction of numerals without reference to meaning. Note, if you check this study, that Leopold did not attempt to generalize. Rather, he presented methodological suggestions which he felt might prove helpful in other investigations of this type.

Or suppose that rather than wanting to study a single case, you wished to conduct research on a group of cases. You might wish to employ descriptive or normative survey techniques. You might then analyze the data by several means. Questionnaires or interviews may yield data which can be appraised on the basis of content or apparent trends.

Normally the interpretation of research data by non-statistical means will employ either deductive or inductive reasoning. This means that a thorough knowledge of cause and effect, probability, and prediction is essential. Since inferences will probably be made and this will involve analogy or generalization, great care must be taken in reaching conclusions. For example, suppose the study of all of the students in the first, second and third grades of a school indicated the relative frequency of occurrence of English consonant sounds in their speech.

This occurred in one study and since the entire group was tested, the conclusions concerning the group could be stated with relative certainty.²⁰ However, what applied to this group as a whole, would not necessarily be applicable to a specific member of that group and thus no conclusions of that type would be warranted.

These, then, are some of the elements of non-statistical research procedures. There are a number of excellent sources of more detailed information on data evaluation. Among them are several listed in the bibliography at the end of this chapter.

C. Presentation of data—graphs, charts, visual aids. An old adage says that a picture is worth a thousand words and if this be true, your research project will be enhanced by data effectively presented. This implies the use of graphs, charts and other visual aids.

According to one research group, "the effective use of graphs—or other pictorial forms—depends on simplicity, clarity of thought, adequate identification, and the selection of the graphic form that is most suitable for the facts you wish to convey."²¹

You may want to consult several sources on data presentation and since the subject is a broad one our discussion here will be limited to two summaries of tables.

The first summary resulted from an extensive study of methods of presenting quantitative data in terms of arrangement, number of items presented, recall of information and logical arrangement.²²

In summarizing his conclusions Washburne points out that:

1. Simple visual patterns with few data tend to produce more specific

recall. More general recall results from presenting more data in more complex visual patterns.

2. Bar graphs are best for complex or slightly complex static comparisons.
3. Pictographs are best for simple comparisons.
4. Line graphs are best for dynamic comparisons.
5. Statistical tables are best for specific comparisons.
6. Round numbers, and not too many of them, are best for conveying specific amounts.

Another brief, but excellent discussion of data presentation is contained in a textbook by Anderson, Saunders, and Weeks. They summarize their discussion of advantages and disadvantages in this way.²³

<i>Type</i>	<i>Advantages</i>	<i>Warnings</i>
Pictures	Arouses interest. Good for nontechnical reader.	Not precise. Variation in size of symbols may give optical illusion.
Pie	Good for breakdowns.	Can have only a few broad divisions.
Bar	Good for comparing magnitudes of data.	Keep number of bars small.
Line	Gives continuous picture. Shows trends and changes.	Avoid having too many lines on chart.
Map	Shows geographical distribution.	Avoid small figures, too many dots or divisions.
Organization	Shows relationships between people or divisions or organization	Don't let it get too complicated.
Flow	Shows movement.	Avoid too many lines or arrows.

V. *Summaries, Conclusions, Applications.* The purpose of conducting research is to provide answers. In general there are two types of answers, definitive and qualified.

Definitive answers are those in which indisputable proof is presented. Qualified answers are implications or inferences based upon the data collected.

The Mader study, previously referred to, serves as an illustration of the use of both types of answer.²⁴ In his study all students of the first, second and third grades of a specific school were examined in order to determine the relative frequency of occurrence of English consonant sounds in their speech.

Since *all* students were examined and since the observations are assumed to be accurate, the researcher could make a definitive report on the results in this particular case.

Did he choose, however, to generalize about occurrence of English consonant sounds in the speech of a particular member of this same group

or of another group of first, second, or third grade students, or of another group of children, his answers would then have to be qualified. The qualification would probably suggest that *if* this group could be considered typical of other groups of the same or different types, *then* the results would be the same.

The important word in reaching qualified conclusions is "if." It is not necessary that the particular word "if" be used, but it is necessary that the application of the research findings not be extended beyond the area of reasonable proof. When it does the conclusions become guess-work rather than scientifically derived.

This is not to deny a willingness to make inferences. They are, of course, justifiable and indeed may lead to other hypotheses which can then be tested in the continuing search for definitive answers.

VI. *Appendices, Bibliography.* This part of the research paper is purely mechanical. It is well to include as appendices, explanatory information which would encumber the text if it were included there. This would include such items as bulky, complex tables and charts, sample copies of measuring instruments, and supplementary data.

The preparation of the bibliography should begin at the latest, when the review of previous studies is started. It is well to save bibliographic notations of all items examined since a good source is not a good source unless it can be found when needed. Frequently, what seems at the time to be unimportant may be of great value later.

The appendices and bibliography should be in good form. An excellent guide in all matters of form is the Style Sheet of the Modern Language Association.²⁵ Refer also to Chapter 15 of this text.

ANNOTATED OUTLINE OF A DISSERTATION

The following outline contains some of the elements of several research methodologies. It is intended to orient the student to the preparation of a research study.

There are, of course, limitless variations upon this pattern and individual adaptations to the particular problem involved, are essential.

Name of Study: "An Objective and Comparative Study of Five Methods of Transmitting Information to Business and Industrial Employees."

Author: Thomas L. Dahle.

Reference: Ph.D. Dissertation, Purdue University, 1953, Abstract in *Speech Monographs*, 21 (1954), 21.

Problem: To measure the relative effectiveness of the following five methods of transmitting information to business and industrial employees:

a. Oral only

- b. Written only
- c. Combined oral and written
- d. Bulletin board
- e. "Grapevine" only (comparison groups)

- Sub-problems:
1. To determine what difference in the results could be attributed to time of presentation of the material.
 2. To determine how length of service affected results obtained.
 3. To compare and contrast results obtained from a student population with those obtained from a business and industrial population.

Note: As originally conceived, the problem was to test with a student population only, the relative effectiveness of the five methods. Research with a business population and an industrial population was not originally contemplated. Also the original problem did not include the sub-problems.

As the scope of the problem broadened and research facilities were arranged with a business and an industrial population, what had started as the entire problem became in fact a "pilot study" which set the pattern for what was to follow.

The development of this problem is outlined below. At the left the procedures are listed and on the right the reasons for using these procedures are described.

Procedures:

- I. Reading and collection of background material.
 - A. Development of communications.
 - B. Review of literature.
 1. Training methods of business and industry.
 2. Communication studies dealing with business and industry.
 - a. Surveys.
 - b. Case studies.
 - c. Experimental studies.
 3. Studies in fields other than business and industry, but related to

Reasons for using procedures:

Since the area of "communications" was relatively new at the time of this study, little previous research had been done. In fact, it was necessary to attempt to define and explain communication before attempting to describe the types and methods, and factors affecting communications.

As the area was not only new, but also extremely broad in scope, the problem of reviewing the literature became a tremendous task.

As defined, communication included all oral or written processes by which ideas or information are transmitted for the purpose of achieving understanding and/or acceptance among the parties concerned.

Procedures:

the topic of communications.

Reasons for using procedures:

The vast amount of material included under this definition is immediately apparent.

In order to reduce the review to a workable size, all *Reader's Guide* headings which had any bearing on communications research, were examined. Also all issues of *Psychological Abstracts*, the *Education Index* and the *Agricultural Index*, were examined for references to communications research. These sources alone provided more than 250 references which were read and file cards prepared on pertinent materials.

In addition to periodicals, books containing materials dealing with communications research were examined, and abstracts of doctoral dissertations and masters theses were checked.

As is often the case in reviews of the background literature, a bibliography contained in one reference would lead to additional materials in other sources.

Once the review of the literature was considered to be adequate, the relationship of the material examined, to the problem was indicated.

The statement of the problem was followed by a general statement as to how the problem was to be solved.

The entire research project involved three separate studies; the preliminary study using students as subjects, the business population study, and the industrial population study.

The same set of criteria applied to all three studies. The type of material chosen for transmission, the length of the communication, methods of transmission, nature of the populations, and persons selected to transmit the information, were determined on the basis of the criteria set up.

Since the study involved considerable

C. Statement of the problem.

D. General plan of the problem.

II. The Preliminary study.

A. Criteria governing plan of study.

Procedures:

B. Plan of the preliminary study.

1. Subjects.

2. The communication.

3. Methods of transmission.

4. The communicators.

Reasons for using procedures:

time of employees engaged in productive efforts, practical as well as academic considerations were involved. That is, workers could not be kept off their jobs for a lengthy period of time so the transmission of information and the testing had to be accomplished in a limited period of time. Yet, it had to be a period of time sufficient to allow for data which could be interpreted with some meaning. The plan and procedures, based upon the criteria previously set up, were then described.

The subjects of the preliminary study were 1030 students in two elementary speech courses. The subjects were enrolled in all schools of Purdue University, and collectively were considered to be a fair sampling of undergraduate students.

The information transmitted to the students was that contained in the course syllabus. The nature of this material suited the criteria set up for the communications material since it was significant, informative, relatively non-controversial, and realistic.

The methods of transmission employed included the five referred to under "Problem."

These five were chosen because they were commonly used in everyday communication and because they provided a variety of methods.

No deliberate effort to transmit information was made with the fifth group—the "grapevine" method. Thus this group served the dual purpose of acting as a control group, and also provided a means of trying to test the "grapevine."

None of the subjects realized at the time of presentation of the information that they would later be tested on it.

The instructor assigned to the particular

Procedures:

5. The measuring instrument.

C. Results and analysis of data.

1. Effects of revision of data.
2. Effects of times of class meeting.
3. Effects of different methods.

Reasons for using procedures:

class, transmitted the information on the first day of classes.

Instructions as to method of presentation with which a particular instructor was involved, were standardized through previous meetings and printed instructions. Each instructor knew well in advance, what procedure he was to follow.

On the second meeting of the class following presentation of the material, the effectiveness of presentation was measured by means of a ten question, multiple choice (four alternative answers for each question) test.

The test was constructed in accordance with scientific testing procedures. Each question had only one correct answer.

The plans for statistical analysis of the data were worked out well in advance, with the advice of expert statisticians.

Unacceptable test returns were eliminated and each paper was then categorized into number of correct, incorrect, and omitted answers and totals were computed.

After all computations had been made, it was discovered that there were two possible correct answers for one question. A chi square test revealed that results were affected by this question and so this question with its answers, was deleted. Results were then re-computed and the data analyses were made on the basis of answers to nine questions.

The classes involved met at various times of day and thus effects of time of class meeting upon effectiveness of transmission by each method could be checked.

This was done by means of a two-way analysis of variance of the type described by Dixon and Massey.²⁶

The two-day analysis of variance indicated that "times of meeting" did not affect scores.

Procedures:

4. Determining differences between methods.

Reasons for using procedures:

The next step was to determine whether or not mean scores of the methods were significantly different. This was done by means of a one-way analysis of variance described by Anderson and Bancroft.²⁷ The one-way analysis of variance established a significant difference between methods of presentation existed. The relative ranking as to superiority of methods was then established by means of Tukey's test for comparing individual means in the analysis of variance.²⁸

D. Conclusions.

The phenomena (different methods of presentation) had now been observed, the data collected (tests), and interpreted (statistical techniques), and it was possible to conclude there were differences between methods; that times had no effect; and that the ranking as to effectiveness on the basis of statistically significant differences were as follows:

- a. Combined oral and written method
- b. Oral only method
- c. Written only method
- d. Bulletin board and "grapevine" only methods.

Two additional parts—that dealing with an industrial population, and that with a business firm—both dealing with the same methods of transmitting information were also a part of this study. Sufficient information has been given, however, to suggest the general pattern for this particular type of descriptive study.

EVALUATING EMPIRICAL OR DESCRIPTIVE STUDIES

As in all scientific research, the ultimate demonstration of the trustworthiness of empirically obtained data lies in agreement between observations. Several scientists may observe simultaneously, or one or more may record the same phenomenon at different times. In either event, agreement of the results, within a scientifically tolerable margin of error, constitutes the final evidence of scientifically acceptable fact.

Not always, however, is it possible or even necessary to invoke this ultimate test. Many excellent empirical studies consist of one observation only. The nature of the hypothesis may not require additional observa-

tions, or they may be impossible because of the non-recurrent nature of the phenomenon. In such instances, the critical reader makes use of two more readily available bases of judgment: statistical measures and the investigator's report of the plan and method of the study. Each user of the empirical method must assume the responsibility of presenting the record of his statistical support and, just as necessarily, a clear and accurate report of the design and procedure of the study.

The critical appraisal of the study on the basis of the report itself turns first to the general content and nature of the account. Is it clear and concise; complete? Could the informed reader repeat the study with no further instructions? Does the writer indicate exactly what was done, and the means of the doing, in whatever detail may be necessary for the reader's understanding.

For the critical reader, this scrutiny of the general nature and substance of the report is a first step, but only the first. Attention soon shifts to the details. With what skill and accuracy did the investigator seemingly employ the techniques and cautions essential to the empirical method?

Does the problem, as stated by the investigator, meet the requirements for good problems as outlined earlier? While it is extremely unlikely that any published report actually will illustrate the quip, "Ask a foolish question, get a foolish answer," the critic is well aware that no answer can be better than the original question.

Particular attention should be given to the definitions supplied by the writer of the study. All significant names and terms should be defined clearly and precisely. Scientific study is possible only if the observed structure or phenomenon is so defined or described as to be recognized readily by any or all observers participating in the study. The identification must be sufficient to permit precise counting or measurement. In the interest of good observation, the investigator should report definitions of a descriptive or "operational" variety. The writer and the reader should be able to identify and measure, equally, the phenomenon or process with which the study is concerned.

Since empirical study depends upon observation, the scholar's report of the nature and means of his observation will provide further basis for appraisal. To receive reader acceptance, the report should indicate that the observations were specific; that they were planned in advance and systematic. There should be evidence, likewise, that the study employed the most accurate means and procedures possible. As a final item in this admittedly incomplete list of desirable characteristics of the observation, should be included the necessity for making a record of the observations immediately, or as soon thereafter as is at all possible.

In general, the more expert the observer the greater is the likelihood that the obtained results will be acceptable as scientific data. Differences in training, experience in the use of observational techniques, and knowledge in the field to which the study is applied, may make for wide differences in the trustworthiness of the obtained results.

Further estimation of the technical soundness of the study may be made from the investigator's evident precautions to assure both the validity and reliability of the obtained data. Neither may be assumed nor taken for granted. In addition to the statistical evidence presented, the design and execution of the investigation should be scrutinized.

In brief, the definitions and descriptions of the observed process or phenomenon should indicate clearly that the study deals with an observable entity and not with a construct nor with a confusing complex with a multiplicity of components. Most studies, particularly those pioneering a new area of work, will report specific evidence of the validity obtained through the basic plan of the study.

Reliability, being concerned with the accuracy of the measurements, seems somewhat easier to appraise both statistically and through an examination of the plan of the observation. Reliability is primarily a matter of the observer himself, and of the accuracy of any instrument or apparatus that may extend the scope of his sense organs. Obviously, the degree of accuracy of all equipment must be quantitatively known and stated. Errors from this source are not always random, and therefore may not be subject to statistical detection and correction.

A final step in this process of appraising an empirical study on the basis of the investigator's report concerns the generalizations presented by the writer. Scientific study exists to obtain facts and to organize these facts in a systematic pattern. This organization of the data results in a summary or generalization which includes the range of the information obtained, but does not go beyond the secured facts. In other words, while inferences, surmises concerning causal or other relationships, and the formulation of additional hypotheses, are legitimate and frequently most useful processes following an empirical study, they should be labeled clearly and distinguished from the scientific generalization of the presented data.

Perhaps special mention should be made of one pitfall for the overly enthusiastic or unwary user of the empirical method. Modern measures of "statistical significance" do permit a rational extension of the generalization to a population much larger than the usually limited group acting as subjects for the original study. But both the writer and his critical reader must remain mindful that such extension of the results of the study to a "total population" means only an application to "similar samples." Generalization or application of the obtained knowledge to a population beyond that of the studied sample is possible only to the extent that the original sample is typical and representative of the larger group.

SUMMARY

The empirical approach is a commonly employed and extremely useful form of scientific investigation. It is a means of obtaining valid and reliable measurements and descriptions of structures, processes, and behaviors, occurring with the complex communicative activity designated as speech.

The greatest value of the method lies in the study of behaviors and activities which are not amenable to control and repetition at the will or convenience of the investigator, or in which an attempt to establish the controls necessary for repetition and variation would alter or destroy the process under investigation.

Though the results obtained through empirical study constitute trustworthy scientific knowledge, there is one basic limitation inherent in the method itself. Empirically the investigator can demonstrate coincidence, that two events or processes occur together in apparently invariable relationship. But even perfect correlation does not establish a causal relationship in the scientific sense. For the demonstration of scientific causality, experimentation with its control and variation of phenomena, must be used.

The procedures or "steps" of the empirical method are those pertaining in all scientific inquiries. The empirical scientist begins with a problem or hypothesis, which deals with an observable structure or phenomenon. The terms of this hypothesis are defined or described in such a way as to permit attainment of acceptable validity and reliability of the subsequent observation. Following the formulation of the problem or hypothesis, the scientist next establishes his general plan and method for observation. As the observations are made the data are recorded promptly and fully, and the results of the study are organized and classified, as a basis for the final generalizations concerning the original problem or hypothesis. Scientific rigor demands a critical scrutiny of the data and the generalizations using all available statistical and non-statistical needs.

If the results of his study are not to remain the private property and profit of the investigator, he concludes his investigation by presenting, in appropriate textual and tabular form, his procedures, findings, and such summaries and generalizations as will make his work useful to scientific knowledge.

As a long established form of scientific investigation, the empirical method has wide usefulness in the field of speech. The graduate student who is anticipating research activities following the mandatory activities of the candidate for an advanced degree, will see many unknown areas in the field of speech which will yield their secrets to the empirical investigator.

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CHAPTER 10

The Experimental Approach

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INTRODUCTION

“Our staff has been experimenting with a new approach in teaching our beginning course,” exclaimed a young instructor at a recent convention. Inquiry revealed that he and his colleagues were using a new syllabus. In like manner we may refer to experimental theatre, meaning the production of plays that are new, unusual, or seldom produced. Likewise we may speak of “experimenting with a new procedure for admitting children to the speech clinic,” or of an “experimental workshop in radio-TV.” These examples illustrate a commendable experimental attitude, a willingness to test ideas by trying them in actual practice. For purposes of graduate research, however, a more rigorous definition of “experimental” is required.

DEFINITION OF EXPERIMENTAL METHOD

Experimental method is a research plan that undertakes to find predictable relationships among variables, by means of controlled observation of controlled phenomena. Some of the implications of “controlled” are suggested by Beveridge:

“An experiment usually consists in making an event occur under known conditions where as many extraneous influences as possible are eliminated and close observation is possible so that relationships between phenomena can be revealed.”¹ A “variable” is any phenomenon that may affect or be affected by other phenomena. A “phenomenon” is anything (object or event) susceptible to observation. “Relationships” implies both differences and/or resemblances. The word “predictable” implies that under given conditions the *probabilities* are this-many-in-a-hundred that a given event will happen. The phrase “undertakes to find” implies that the experimenter does not attempt “to prove.”

Experimental research may also be defined operationally by describing what an experimenter does. Highlights of an experimenter’s procedure are

sometimes condensed to three: state an hypothesis, test it, state a conclusion about it. For the purposes of organizing this chapter, however, the conduct of an experimental study may be more conveniently divided into the following six major steps:

- I. Formulating the problem
 - A. Types of problems best answered by experimental method
 - B. Testing a problem
 - C. Stating a problem
- II. Planning the experimental design
 - A. State hypotheses and deduce the consequences
 - B. Plan the most valid and reliable way of testing the deduced consequences
 1. Validity and reliability
 2. The law of the single variable
 - a. Manipulating experimental variables
 - b. Holding non-experimental variables constant
 - (1) Controlling experimental environment
 - (2) Controlling groups of subjects
 - (a) Single group designs
 - (b) Multiple group designs: randomization, matching, and rotation
 - C. Plan the observation and recording
 - D. Plan the likely statistical procedures
- III. Gathering the data
- IV. Processing the data
 - A. Use of tables and graphs
 - B. Use of statistics
- V. Deciding upon conclusions, interpretations, and implications
- VI. Preparing the written report

I. FORMULATING THE PROBLEM

Almost never does an experimental research problem spring perfected from the student's brain. In the beginning the problem is likely to consist of a hunch, a feeling of unrest regarding a general area, or an interest in a broad problematic situation. Usually the final statement of the problem evolves slowly and perhaps painfully as the student thinks it through, changing and revising many times.

A. TYPES OF PROBLEMS BEST ANSWERED BY EXPERIMENTAL METHOD

Although there are exceptions, both theoretical and actual, most experimental problems are characterized by the following:

- (a) They deal with future events which can be made to happen under

controlled conditions and which can be duplicated by other experimenters for verification. They do not deal with past events or with unique events.

(b) They deal with groups of subjects and samplings of data. They do not deal with one person only.

(c) They deal with behaviors that can be quantitatively measured and statistically compared. They do not deal with behaviors that can only be described verbally; nor do they deal with non-predictive numerical data.

(d) They deal with situations where the experimenter can maintain optimum control over everything that happens, e.g., the classroom, clinic, laboratory, sound stage, forensic tournament, radio-television-film studio. They do not deal with situations where control would be limited or impossible, e.g., a national political convention.

B. TESTING A PROBLEM

A research problem suitable for experimental research in oral communication is a question or series of questions asked about a selected group of phenomena, the answer to which is not yet known, the answering of which appears to be feasible, and the answer to which would be significant to the field of oral communication. This definition suggests three criteria for testing a proposed problem.

The effects of these three tests upon the evolution of an experimental problem may be illustrated by the experience of one of the writers' students, John L. Robson.² From casual observation of the behavior of audience members during the performance of certain plays, Robson wondered whether attendance at a play can change audience attitudes toward moral questions. A review of the literature indicated that the answer was not yet known; it revealed, in fact, very little experimental work on any problems in the field of drama.

The second test was that of feasibility. Was his question answerable by means of experimental research? Robson's first plan was simply to produce a suitable play, and measure before and after attitudes by means of a shift-of-opinion ballot; but this proposal did not include provisions for adequate controls or predictive comparisons. It might have been done as an empirical study but that possibility was rejected by applying the third criterion—all that he could possibly do would be to report that in this particular instance the audience attitudes either did or did not change. So what?

Robson re-formulated the problem many times. For example, he thought of writing and producing three plays which would be alike in all possible respects except that one would be pro, one con, and one neutral on a chosen moral issue. After some weeks he realized that regardless of anything else, he was going to have to plan for two or more performances of any given play. But what about the traditional first-night jitters or second-night let-down? Robson began to question this traditional rule of

thumb. Did these night-to-night fluctuations in the performances of the same cast in the same play result in significant differences in audience attention and interest? The answer to this question would be significant to directors, actors, and researchers. Robson ended up with an experiment in which three one-act plays were presented on three successive nights to three matched audiences. He found that there were differences between performances but that these differences were apparently compensatory because there were no significant changes in audience response.

Robson's final choice of problem was a far cry from his first proposal. The evolution of his problem illustrates the importance and the difficulty of the first stages of experimental research. The student should expect to spend many hours analyzing and testing possible problems; he should expect that some of his proposals will be rejected while others must be better defined, delimited, or even radically re-directed.

C. STATING A PROBLEM

The process of testing a proposed problem leads naturally into the process of stating it. Putting the statement into written form is an important mental discipline because the student is again forced to analyze, define, limit, re-think. As we noted in Chapter 1 there are at least three common forms into which a problem for investigation may be put: as a general purpose (or objective), as an hypothesis (or prediction) to be tested, or as a question.

There are advantages and disadvantages to all three forms. A general purpose statement conveniently describes the over-all problem, leaving freedom as to details, but it is likely to be too broad to give proper guidance and direction to the subsequent steps of the experiment. An hypothesis centers attention upon the precise problem and is essential to proper planning of the experimental design, but it has the danger of tempting the student to think that he is supposed to prove or to disprove the hypothesis. A question statement has the advantage of focusing the student upon his exact problem, leaving him free to find rather than to prove something, and it is especially helpful as a device for revealing possible flaws in the student's thinking.

For best results in thinking through a problem the student should try to state an experimental problem in all three of the forms. He may begin with a statement of general purpose. Then he should narrow, de-limit, and define the problem by putting it into the form of a general question, probably subdivided into several constituent sub-questions. Last, he should translate his questions into the form of an hypothesis. In the final write-up of his experiments the student may choose whichever form or combination of forms seems best suited to give the reader a clear and accurate picture. In other words, the first statements of problem are to help the student; the final statement is to help the reader.

II. PLANNING THE EXPERIMENTAL DESIGN

The detailed plan for the conduct of a given study is called the experimental design. The experimental design should grow directly from the statement of the problem, and should indicate exactly how the experimenter plans to undertake the solution of that problem. In fact, it should already be apparent that in testing and stating a research problem, the experimenter must do advance thinking about the available ways and means of finding a solution. In the further planning of the experimental design the student may be assisted by these four suggestions: (1) state hypotheses and deduce the consequences, (2) plan the most valid and reliable way to test the deduced consequences, (3) plan the observation and recording, and (4) plan the likely statistical procedures.

A. STATE HYPOTHESES AND DEDUCE THE CONSEQUENCES

Once a research problem has been chosen, no further progress in the inquiry can be made until the student is able to suggest one or more *possible* solutions or explanations. Usually, several possibilities can be suggested. For example, Smith stated part of his problem as, "What is the effect on the persuasive qualities of a speech of modifying its organizational pattern?"³ Suggested answers might include:

1. There would be no effect.
2. Persuasiveness would be impaired or reduced.
3. Persuasiveness would be improved.
4. Effects would vary, depending upon type of audience, speech topic, kind of modifications made, etc.

From such a list of possibilities, the student must choose one or more. No rule can be offered to guarantee that the student will think of all the possible answers, and choose the best of the alternatives for experimental testing. Relying upon his insight and his previous knowledge, the experimenter chooses those possible solutions which seem most directly relevant to the problem, and most likely to be crucial to the solution of the problem. He then states these suggested solutions as propositions, and they are called *hypotheses*.

The experimenter next says to himself, "If this hypothesis is true, what must be the observable consequences?" Let us illustrate. Nelson stated his general problem as follows:

This study was undertaken in an attempt to determine partially what are the relative contributions to learning of the audio and video elements of a film.⁴

Nelson's problem, like all problems, was based upon certain assumptions which should be distinguished from his hypotheses. Thus it would be incorrect to say that he wanted to test the hypothesis that learning can be

effected by means of sound motion pictures—Nelson assumed as much (probably in light of his knowledge of previous research). So we look for propositions, the truth of which is to be tested, not assumed. Among various possibilities, two might be stated in abbreviated form as follows: (1) that some learning results from each of the film elements, the video and the audio, when those elements are experienced separately; (2) that more learning results from the video element alone than from the audio element alone. If these hypotheses are true, what must be the observable consequences? We would expect that a group of subjects, tested upon the contents of an appropriate educational film, would score higher after either seeing the video element or hearing the audio element than they would score if they did not see or hear the film at all. Also, we would expect the subjects to score higher if they saw the video only than if they heard the audio only. Again, we would expect them to score highest after both seeing and hearing the film. Additional consequences may readily be deduced, but the foregoing should suffice to show how an experimental design begins to take shape.

In deducing consequences the student's thinking may be stimulated by stating a hypothesis in different ways. Thus the second hypothesis in the preceding paragraph might be stated in favor of the audio rather than the video. Another common form is known as the "null hypothesis." The example would then be stated: that differences in the amount of learning between persons seeing the video element only, and persons hearing the audio element only, could be differences arising from chance alone. One virtue of this form of statement is that several common statistical procedures have been devised for the explicit purpose of testing a null hypothesis.

B. PLAN THE MOST VALID AND RELIABLE WAY OF TESTING THE DEDUCED CONSEQUENCES

1. Validity and Reliability

In planning how to put his deductions to the test of actual practice, the experimenter must make dozens of choices involving his proposed subjects, materials, and procedures. In making these choices the experimenter will be helped by applying two fundamental criteria, validity and reliability. Validity raises the question, "Did the experimenter measure what he claimed to measure?" Reliability raises the question, "If the experiment were repeated by others, would they get the same results?"

Some writers consider reliability and validity as characteristics restricted to the measuring instruments used in an experiment. However, Guilford says:

Note that it is the *measurements* that are said to have the property of reliability rather than the measuring instrument. That is because in psychological and educational measurement, and other social measurements, reliability depends upon the population measured as well as upon the measuring instrument.⁵

Guilford goes on to point out that reliability also depends upon the “conditions” under which the measuring occurs. Thus reliability and validity are involved during every phase of the planning of an experimental study.⁶

It is probably impossible to plan any experiment upon human behavior that will be absolutely valid or absolutely reliable. “Even in the physical sciences, it is now known that a great deal of previously unsuspected variability exists.”⁷ In social science experimentation validity and reliability are matters of degree; and experimental designs involve many compromises. Planning these compromises is likely to be the experimenter’s most important and difficult task. Usually, the basic problem is whether the variables can be well enough controlled to provide a sufficient degree of reliability without too much loss of validity.

2. The Law of the Single Variable

In planning an experimental design the most important advice is to adhere as closely as possible to the law of the single variable. One way of stating this “law”: the experiment should be designed so as to change only one variable at a time, meanwhile rigorously holding all other variables constant.

It is customary to refer to a variable that influences the subjects’ behaviors as an *independent variable*; to refer to an independent variable that is deliberately manipulated by the experimenter as an *experimental variable*; and to refer to the behavior that varies as a result of the independent variable as a *dependent variable*. For example, Smith, in the previously cited study, “directed toward determining the effect on the persuasive qualities of a speech of transposing its main parts,” said:

The independent [experimental] variable for the study was the various organizations of the speech as heard by the different experimental audiences. The dependent variable was the change in degree of audience response resulting from these respective speech modifications.⁸

In applying the law of the single variable to a particular experimental problem, the many detailed plans required may be grouped under three major headings: (1) manipulating independent experimental variables; (2) holding non-experimental independent variables constant; and (3) observing, recording, and measuring dependent variables.

a. Manipulating Experimental Variables

Most experiments in oral communication begin with a stimulus to the subjects; and this stimulus is usually the experimental variable. In accordance with the law of the single variable, the experimenter should change only one variable at a time. This does not mean, however, that every experimental design must be limited to two variables (one independent and one dependent). There may be two or more experimental variables (for example, the experimenter might present a series of sounds, manipulating

both pitch and intensity) provided that the design permits their manipulation one at a time. There may be several dependent variables (for example, in studying stage fright an experimenter might want to measure many responses, such as pulse, blood pressure, introspective report).

In planning how to manipulate *one* variable at a time the experimenter often encounters the fundamental question, "How much is one?" For instance, Gray described the use of stimuli about as "small" as can be found in speech research:

Essentially, it [the experiment] attempts to take from continuously uttered, isolated vowels smaller and smaller random segments, in point of duration, until these segments are reduced to unintelligibility; that is, until they are no longer recognizable as those particular phonemes.⁹

Gray devised an apparatus which "by means of a continuously variable adjustment" could reduce the duration of a vowel sound by fractions of a second. "The longest time interval used in this study was .052 second, and the shortest .003 second."¹⁰ For contrast we may turn to a study by Ewing in which the independent variable was the method of teaching a beginning speech course. Two contrasting sequences of class assignments were set up. Several speech classes were used as subjects. "The experiment proper was carried out during the Fall, Winter, and Spring Quarters of the year 1940-41."¹¹ Pre-tests were given during the first week of each Quarter, and end tests during the last week. Thus the manipulated stimulus in Gray's experiment was a single sound (or "part" of a sound) lasting as little as .003 second, while the stimulus in Ewing's experiment was an entire syllabus for a course lasting weeks.

In considering the contrast between the studies by Gray and by Ewing, it might seem that, if Gray is manipulating a single variable, Ewing must be manipulating several million variables. This logic, however, is not necessarily true. Human beings perceive stimuli as meaningful units; and in the case of "large" units the whole may be different from the sum of its parts. For example, although a word may consist of six sounds, the word *per se* is a single unit—break it down into phonemes and the *word* disappears. As another example, several researches have indicated that, in judging proficiency of speaking or oral reading, ballots of over-all effectiveness are as good or better than ballots requiring the judges to rate details, such as voice, articulation, language, bodily action, and various aspects of content. In other words, listeners tend to perceive the innumerable details of a speaker as a few major patterns, each of which seems to be a dynamic combination (not a list or summation) of many details. Therefore, a "single" variable should probably be considered as a single meaningful unit as perceived by the subjects, and such units may often be configurations comprising hundreds of details.

In seeking to manipulate a single variable the most common difficulty is

to avoid the unwitting loss of control over other variables which should be held constant. This difficulty may be illustrated by Ehrensberger's study in which he sought to compare the relative effectiveness of certain modes of emphasis in public speaking. Several modes of emphasis were tested, such as "use of a forceful voice (semi-bombastic)," "use of a soft voice (aspirate)," and "the pause."¹² In order to test all of these different forms of emphasis, "Twenty-one different arrangements of the material were used with twenty-one groups of subjects."¹³ Regarding the techniques for presenting these stimuli, Ehrensberger said:

To have one individual, trained in the art of public speaking, deliver the discourses before all the groups, would tend to influence the results because of the skilled presentation and the speaker's particular personality. Conversely, to have a person unskilled in the art of public speaking deliver the discourses would tend to influence the results negatively. Even among trained speech teachers there is a great difference in personality traits. Therefore it was deemed advisable to have several capable speech teachers deliver the discourses, thereby neutralizing the effect a particular personality might have. . . .¹⁴

But let us suppose that Speaker A delivered a given sentence in a "forceful" voice (in accordance with instructions on the margin of his speech provided by the experimenter), and that Speaker B delivered the same sentence in a "soft" voice (also his interpretation of the marginal instructions), and finally suppose that the audience reactions in these two cases were significantly different. Could we conclude that this difference was due to the experimental variable of forceful versus soft voice? Not necessarily, for the audience response may with equal logic have been associated with differences in the two speakers' personalities or speaking styles. Suppose that the difference had not been significant. Would that mean that the two variables of forceful and soft voice were of equal effectiveness? Not necessarily, for the audience responses may have been due to the fact that Speaker A did the "forceful voice" with the exceptional skill while Speaker B failed to do justice to the technique of the "soft voice."

Perhaps Ehrensberger should have used one carefully chosen and carefully drilled speaker for all the groups, thus keeping constant as nearly as possible the effects of a speaker's personality and speaking style. Even so, if one speaker gave the materials 21 times, it would be almost impossible for him to keep every non-experimental factor exactly constant—he would probably have some variations in pitch, rate, general mood, etc. One way of resolving this question would be to run a preliminary experiment designed to measure the extent of a given speaker's ability to reproduce the speech exactly.

Another way of resolving the difficulty would be that of tape-recording the speaker. This would keep the vocal part of the stimuli almost constant and hence more reliable, but would mean a loss of the visual elements and hence less valid—because the experimenter wanted to compare emphasis

techniques in public speaking; the response to a tape recording is a response to a tape recording, not to an actual "in the flesh" public speech. The same loss of validity would occur if the presentation had been filmed. Validity demands that the stimulus be what it claims to be—a speech, a reading, a play, a radio program, a recording, a film, a TV broadcast. But reliability demands that the stimulus be held constant through all replications. The answer is often a compromise.

In planning the administration of stimulus materials one problem, sometimes overlooked, is the giving of instructions. The wording of instructions, the manner in which they are given, even the presence of the experimenter or his assistant, all become part of the stimulus pattern. Extemporaneous remarks by the experimenter should be avoided; if oral instructions seem necessary, they should be memorized. Written instructions should be composed with extreme care, and should be tested beforehand by one or more trial runs. In some instances instructions may be presented by tape recording. The dilemma is how to standardize the giving of instructions without introducing an artificiality that may itself become a variable.

The length of time required to administer the stimulus materials often poses a difficult question. If the subjects are expected to pay close attention for too long a time, a fatigue factor may become operative and distort the results. On the other hand, the necessities of the research problem may require several hours of listening, watching, and analyzing by groups of subjects. Sometimes the answer is to divide the testing into two or more sittings, or to offer special incentives. The optimum time limit for experimental sessions varies from a few minutes to two hours, depending upon such things as the age and health of the subjects, the difficulties of the required task, the interest value of the stimulus material. Rule of thumb for most experiments would probably be from 45 to 75 minutes.

Although the experimental variable is usually the stimulus, deviations from such a design are not uncommon. Thus Black opened a research paper:

The report of an earlier study showed that readers use greater vocal intensity in sound-treated rooms than in live rooms. The explanation was suggested that readers may attempt to maintain a normal level of side-tone, i.e., experience of loudness of the voice, as they talk. Thus, when they were surrounded by non-reflecting walls, a greater vocal output was required in order to make the level of the auditory experience seem normal than when the walls reflected sound efficiently. The present study was planned to explore the explanation further. In this instance the speaker's ear was treated as an experimental variable and the walls of the room remained constant.¹⁵

In the first experiment mentioned by Black the experimental variable was the environment (sound-treated versus live walls); in the second, the manipulated variable was the subject's ear (noise-induced temporary deafness versus normal hearing).

b. Holding Non-experimental Variables Constant

In the preceding section it was shown that an experimental variable must be carefully defined and manipulated lest in changing that one variable we inadvertently change others. Additional precautions are required, however, if we are to control all the relevant non-experimental variables. By "relevant" we mean anything in the entire experimental set-up that might influence subjects' responses.

(1) *Controlling Experimental Environment*

When the independent variable is a stimulus, and when several sittings or several groups of subjects are required, it is desirable to control the place, time, sights, sounds, and perhaps even the temperature or ventilation. Ideally, this means that the environment for all experimental sessions should be precisely the same; in practice it means that the conditions should be kept as nearly the same as possible.

Fortunately, minor variations in the environment are not likely to be relevant. For example, it is unlikely that two different but similar classrooms would influence the subjects' responses to experimental variables such as speeches, tape recordings, or motion pictures. However, the experimenter should study the two classrooms for possible relevant differences. Is there any measurable difference in acoustics? Does the light shine into subjects' eyes in one room but not in the other? Does one room happen to have a striking picture or poster on the wall while the other room does not?

Differences in time of day may affect the responses being studied. Are the subjects likely to be more alert in the morning, drowsy just after lunch, tired at the end of the day? Will the use of artificial lighting influence the subjects differently from natural lighting? Will the temperature vary greatly from morning, through afternoon, to evening?

The experimenter should question every environmental detail. Even apparently irrelevant variables should be held as constant as possible. The most direct way of eliminating or minimizing environmental variations is simply the careful planning of dates, hours, rooms, etc. In some experiments the environment may be controlled by rotating the groups so as to equalize the number of sessions per room, per hour, etc.

Differences in environmental conditions should always be carefully recorded so that allowances can later be made in interpreting the data. Unanticipated disturbances, such as a low flying airplane, should be reported.

(2) *Controlling Groups of Subjects*

An overwhelming majority of experimental studies in the behavioral aspects of communication require the use of groups of subjects. There are, of course, many studies in which subjects are individually tested under laboratory conditions; even in these, however, the data are almost always

combined in terms of groups of subjects. In planning experimental designs, therefore, one of the most common problems is how to make valid and reliable comparisons of multi-individual data; and there are several common alternatives from which the experimenter may choose.

(a) *Single group designs*.—D'Asaro has reported a study of the effects of sedation upon the speech performance of aphasics.¹⁶ He decided to compare the responses of aphasics under three conditions: (1) no sedation, (2) light dosage of sodium amytal, and (3) heavy dosage of sodium amytal. D'Asaro chose a single group design—30 aphasic patients at the Sawtelle Veterans Hospital volunteered to be subjects. Each subject was individually treated and tested three times at one-week intervals, once for each of the three conditions of sedation. Thus the experimental variable was the degrees of sedation, and by using a single group of subjects D'Asaro sought to control all non-experimental variables which might arise from individual differences among the subjects, such as personality differences, differences in type or degree of aphasia, differences in tolerance level for sodium amytal, etc. The advantage of this single group design becomes clearer when we contrast it with a multiple group design: D'Asaro might have used three different groups of subjects, one for each condition of sedation, and then made statistical comparisons among the three groups.

The above discussion may suggest that the single group design affords foolproof control of variables due to individual differences among subjects. Unfortunately this is rarely if ever true. Thus, D'Asaro could not control possible changes in his subjects which might occur during the intervals between sessions: Were there any learning effects? Any changes in attitude toward the experiments? Any changes, physical or otherwise, in the aphasic condition of the subjects? D'Asaro sought to counter-balance such possible variations by rotating the order in which the three conditions of sedation were administered, but absolute control could not be guaranteed.

The single group design does not relieve the experimenter of the task of trying to control variables connected with the environment and with the testing procedures. Thus, D'Asaro sought to hold constant the influence of suggestion by using a placebo (an injection of saline solution) for condition one (no sedation). He sought to control other environmental stimuli by conducting each individual session in a specially prepared clinic room at the hospital. This held constant all the inanimate portions of the environment, but what about the behaviors of the experimenter and colleagues assisting him? They could only try to behave in the same fashion during each experimental session. In giving certain parts of the speech test, D'Asaro had to adapt his own responses to those of the subjects—thus some variation was bound to occur. The chief danger was that consciously or unconsciously he might have wanted to show that one of the three conditions of sedation was superior to the other two and, therefore, his extemporaneous remarks or his general mood and manner might have been more helpful

and encouraging to the subjects during one of the conditions than during the other two. Chief protections against such danger are: (1) recognizing the danger in advance, and (2) planning and practicing in advance how to secure maximum objectivity and maximum similarity of behaviors while administering the tests.

The single group design is, of course, not limited to individual testing in laboratory-type experiments—it may be used for experiments in which all the subjects are tested together. Suppose, for example, that we wish to compare two or more methods of administering examinations in a given communications course. We might choose one class as the subjects, and then plan a way to give the different types of examinations in alternation during a semester so as to make possible a valid comparison.

Probably the most common technique in using a single group design is that of administering the same experimental procedures to two or more groups of subjects, and then combining the data. This technique makes possible the accumulation of a large number of subjects, and it is defensible if the several groups are drawn from an apparently homogeneous population, e.g., several sections of the same course at the same school.

All things considered, the single group design probably provides the maximum possible control over variables arising from individual differences among subjects. Frequently, however, the nature of the problem precludes a single group design.

(b) *Multiple group design.*—The majority of experiments in communications involve two or more groups of subjects. The simplest multiple group design has an experimental group and a control group. Suppose, for example, that we wish to discover whether oral reading increases a student's vocabulary. We might choose a class in oral interpretation as our subjects; give them a standardized vocabulary test at the beginning and end of a semester, and see if the post-test scores were higher than the pre-test. Such a study would be empirical rather than experimental because there would be no control over relevant variables. Therefore, even if the members of the class showed substantial vocabulary improvement, we could not be certain that the oral reading had anything to do with it. Perhaps these students' vocabularies would have increased even if they had not taken the course in oral interpretation, i.e., vocabulary growth might be a function of "going to college." The simplest way to secure some measure of control would be to select a second group of subjects similar to the first in all respects except that they would not take the course in oral interpretation; this second group would be called the control group. Then, the question would not be whether group A showed improvement, but rather that improvement was significantly greater than the improvement of group B.

In the foregoing hypothetical case it will be seen that the success of the entire experiment requires that the two groups of subjects should be similar in all relevant respects. Considering how different people are, how

can we ever secure equivalent groups? There are three common techniques: randomization, matching, and rotation.

Randomization. If we carefully analyze the hypothetical example of oral reading and vocabulary growth, posing a variety of hypotheses and deducing their consequences, we will eventually arrive at an experimental design which is more complicated than a simple two-group experiment and more likely to give us a maximum of useful information. Such a study has been reported by Young:

In general the experimental design of the present study was as follows: three groups, each of approximately 150 college students, were given a vocabulary test. Following the vocabulary test, one group was given a series of five stories to read silently, another group was given the same series of stories to read orally, and the final group listened to the same series of five stories by means of a tape recorder. After the groups had experienced the reading material in one of the preceding three ways, they were again given the vocabulary test.¹⁷

The standardized vocabulary test contained 210 multiple-choice items. The experimenter wrote the five stories so as to include all 210 words from the test in meaningful context.

Young employed the method of randomization in order to secure what he hoped would be closely similar groups:

In scheduling the experiments no attempt was made to determine which students should sign up for which of the three groups. Since the population from which all the subjects were drawn seemed to be fairly homogeneous and since a minimum of 150 subjects would comprise each of the three groups, it was believed that the three groups would be reasonably well-matched by chance.¹⁸

Having relied upon chance to provide closely similar groups, Young wanted to see if this reliance had been justified:

In compiling the data, however, it was thought wise to compare the three groups immediately relative to all identifiable variables which might influence vocabulary scores. It was possible to compare the composition of the three groups in terms of five such variables: academic year, sex, age, IQ, and foreign students represented.¹⁹

He found that sex, age, and IQ did not significantly influence vocabulary gains; therefore, he could safely disregard differences between groups relative to percentages of those three variables. He found that seniors showed significantly greater vocabulary gains than freshmen; and foreign students showed significantly smaller gains than non-foreign students. Therefore, he had to check the three groups to see if any groups contained a significantly higher or lower percentage in terms of either of those two variables. Two such discrepancies were found, and both were used to qualify subsequent interpretation of data.

But what about possible differences between groups relative to variables other than the five which could be checked? The first answer is that most variables would not be relevant to vocabulary gains, e.g., height, weight, color of eyes. The second answer is that, if there were unknown relevant variables, the chances are that they would be about equally distributed among the three groups. The third answer is that even if one relevant variable were unequally distributed, that influence would probably be offset by another relevant variable unequally distributed in the opposing direction. Therefore, if groups of subjects can be drawn from an apparently homogeneous population, if the groups are fairly large, and if a few of the possibly relevant variables can later be checked, then the method of randomization is likely to provide sufficiently similar groups to justify experimental research.

Matching. Sometimes the similarity between groups can be increased if the experimenter, instead of relying entirely upon the laws of chance, first deliberately matches his groups in terms of several variables which might be relevant to the problem. The matching procedure may be illustrated from a study by Brieland whose general problem was "to compare speech performance of blind and sighted children."²⁰ He equated his groups as follows:

Eighty-four congenitally blind children ranging in age from 12 to 18 who were pupils at two blind schools were matched with control subjects from the Faribault (Minnesota) High School.

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The subjects were matched individually on the basis of age, sex, socio-economic status according to the Minnesota occupational scale, and rural or urban residence. The lack of visual acuity of the experimental group made the comparison of intelligence test scores inaccurate; hence the groups were not matched on intelligence. Matching on socio-economic status does, however, control intelligence to a degree. None of the subjects had training in speech courses but all had had oral composition units in English courses.²¹

It will be noticed that there is a practical limitation upon the number of variables that can be matched. Brieland matched 84 pairs of subjects in terms of four variables; to do this, he probably had to scan the records of several hundred students at Faribault High School. Had Brieland attempted to match the subjects on five or six variables, his task would have become almost impossible—he would probably have had to screen thousands of prospective subjects in order to find 84 pairs who would meet all of his specifications. Nevertheless, if the experimenter has a large population to draw upon, he can greatly improve his controls by matching as many variables as possible.

Rotation. The rotation group technique may be illustrated from the work of Nelson:

The basic plan of the experiment made use of a factorial design, the Graeco-Latin square. . . . This design and analysis allowed a counter-balancing of the four factors of rate, groups, newscasts, and newscasters. Thus in the determination of the effect of any one of these variables, the effects of the others are counter-balanced. For example, in studying the effect of rate on recall, in addition to hearing each of the five rates all five groups heard each of the five newscasts and each of the five newscasters.

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Two hundred and fifty subjects were used in the study, five groups of 50 each. The groups were made up of freshman Communication Skills students at the State University of Iowa. Each group consisted of one basic section of 25 students and one accelerated section of 25 students.

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The actual testing covered a period of one week. There were five consecutive testing periods. Each group heard a different newscaster with a different newscast delivered at a different rate each day of the testing.²²

Thus the variables were rotated in such fashion that no student heard the same recording more than once, yet each of the five groups heard each of the five newscasts, each of the five newscasters, and each of the five rates.

Nelson's study illustrates only one variation of the Latin Square design and related rotation techniques; for a detailed treatment the student should consult the work of Cochran and Cox.²³

C. PLAN THE OBSERVATION AND RECORDING

At this stage in his planning the experimenter turns attention to the dependent variables, i.e., responses of the subjects. Observation of such responses means the direct sensory experience of the observer; recording means the translation of observations into symbols. The foregoing statement calls attention to the important distinction between observed fact and reported fact. In planning the devices and procedures for observing and recording, the goal is to make them sufficiently objective and accurate so that, if duplicated by independent qualified observers, variations in the several sets of data would be within the bounds of chance. This goal is stated in qualified terms because, of necessity, the raw data of all experiments are reported facts rather than observed facts (if an experimenter confined his research to directly observed facts, he could never tell anyone about them nor publish a report of his work). Fortunately, there are several techniques by which the objectivity and accuracy of reported data may be increased to a point where the reliability of those data will be accepted by almost all researchers.

The least objective technique for observing and recording is usually *reports by subjects*. Nevertheless, this technique can sometimes produce highly reliable data. For example, suppose the subjects listened to a series of speeches, and at the conclusion of each speech, the subjects were

given an information test upon what they heard. If the stimuli were properly administered, the non-experimental variables controlled, the tests properly constructed, and the subjects properly motivated, the data might well be highly reliable.

Sometimes, however, validity demands that the experimenter work with the subjects' introspections freely reported in their own words. Resulting responses may vary so much in style and length that no systematic quantitative recording of the data seems possible. One technique for handling such a problem is illustrated by the use of readability or listenability formulas²⁴ whereby any sample of language may be quantified in terms of length of sentences, number of syllables, number of personal pronouns, or the like. Probably the most common technique for getting around the above difficulty, is to avoid asking the subjects to respond in their own words and to substitute instead some type of inventory or self-rating upon which the subjects are requested merely to place checkmarks. But such devices tend to structure (i.e., predetermine to some extent) the subjects' responses.

Another danger of introspective reports is that the subjects' responses may be careless, biased, or deliberately misleading. To contend against these dangers, some experimenters have used projection tests. Best known of these is Rorschach's ink blot test in which the subject looks at a meaningless figure, and then, in describing what he sees, projects meaning into the ink blot, and in so doing unwittingly reveals some of the basic characteristics of his personality. Chief drawback of the Rorschach is the elaborate and difficult scoring system—many hours of training are required before one can undertake to score the tests. Virtues of the technique are that the subjects' responses are relatively unstructured, that the subjects cannot deliberately bias their own scores, and that subconscious as well as conscious behavior patterns can perhaps be explored. Some interesting adaptations of Rorschach's theory have been tried in the communications field. For example, Travis and Johnston have developed a series of picture cards for use in diagnosing stutterers; and in the field of group discussion Libo has reported a projection test to measure the amount of attraction a group has for its members.²⁵

Reports by observers (or "judges") are usually more objective than reports by subjects. However, if the observers are asked to give value judgments, their reliability is likely to be far from perfect. For example, if you wanted to secure effectiveness scores for a given type of speech performance by a group of high school students, probably in most cases the teacher's estimate would be more objective and accurate than the student's. Perhaps, however, the teacher's estimate would be inaccurate in many individual instances—a probability that has been supported by the wide variation of opinion which has occurred when several teachers have been asked to rate the same students. One protection against the foregoing difficulty has been to use average scores by groups of judges.

Reliability can be greatly increased if the experimenter can invent a procedure whereby observing and recording are confined to a description of, rather than a value judgment of, the subjects' behaviors. For example, Rue wanted to compare the relative efficiency of radio and television commercials.²⁶ His subjects were approximately 100 housewives who met in groups of four in a pleasantly furnished lounge room. Four products (coffee, toothpaste, cigarettes, and soap) were advertised by commercials which were equated so as to make the two media of presentation (radio and television) the experimental variable. After the listening and viewing period, one of Rue's techniques for observing and recording was to tell the subjects that, as a reward for their co-operation, they would receive free one pound of coffee, one tube of toothpaste, etc. In the commercials pairs of fictitious brand names had been used to distinguish the radio from the television commercials. Each subject entered a small room with a counter, similar to a store counter, upon which two samples of each of the four products were displayed; labels with the fictitious brand names had been prepared and pasted on the containers. The subject was instructed that she could have one of each product, and she was asked to base her choice upon the commercials she had just heard and seen. The face validity of this technique for measuring the "selling power" of the two types of commercials, seemed high; the objectivity and accuracy of the technique seemed to approach a practical maximum.

By and large, however, the highest reliability in observing and reporting is likely to be obtained by *the use of instruments*. To "observe" and record the audible aspects of communication, tape recorders have become standard experimental equipment; for the visible aspects, motion pictures have become common. Reports of communication research reveal that a wide variety of instruments have been used in many experiments—the galvanometer, electro-encephalograph, X-rays, etc. The invention of new apparatus, especially designed for communications research, is regularly reported. The very nature of such relatively new communication media as telegraph, telephone, phonograph, radio, cinema, television, suggests the increasing importance of mechanical and electronic devices to our field.

There are pitfalls, however, in the use of instruments for experimental research. Probably the most common problem is that the subjects are often affected by the presence of such equipment, or even by the knowledge that equipment is being used—for instance, consider the difference in behavior between subjects who think they are carrying on a private conversation and those same subjects if they discover a concealed microphone leading to a recorder in an adjoining room. Another problem in securing "candid" recordings or motion pictures, is the difficulty of securing permission to "bug" the meeting rooms of non-student groups.

In some studies it is impossible to conceal the necessary equipment. For example, if you wish to take blood pressure readings, the sphygmomanometer must be in plain sight (and the mere sight of the instrument in-

creases the blood pressure in some subjects). A common solution for this type of difficulty is to hold a dry-run session or part of a session for the sole purpose of allowing the subjects to become accustomed to the presence of the apparatus; and frequently an explanation or demonstration may serve to allay curiosity or relieve apprehension.

Fortunately, in many studies there is little if any danger that the presence of equipment will affect the subjects' responses. And in some experimental designs the instrumentation may be an essential part of the setting, e.g., a study of "mike fright."

D. PLAN THE LIKELY STATISTICAL PROCEDURES

If an experimenter is a qualified statistician, he will have been considering the future statistical treatment of the data throughout the various planning stages described in previous pages. However, it is a common practice for an experimenter to hire an expert statistician to assist with that portion of the work (proper ethics for this will be discussed later). But too many such experimenters wait too long before consulting a professional statistician; the first consultation should occur during the planning stage, not after the data have been gathered.

A statistician can usually suggest a number of improvement in a proposed experimental design which will later save time and money; he can often suggest changes that will increase the likelihood of significant findings. A simple example may illustrate the saving of future time and expense. The number of subjects (for which the statistical symbol is N) will be used in all computations: notice how much easier it is to divide by 50 than by 48 or 49. Likewise, the square root of $N-1$ will often be used: if N is 50, then $N-1$ is 49 and the square root is 7; but if N is 49, then $N-1$ is 48 and the square root is 6.9282.

III. GATHERING THE DATA

The difficulties of gathering the data are reduced in proportion to the thoroughness with which the experimental design has been planned. The importance of minute detail in advance planning may be illustrated by an incident which occurred during a Ph.D. experiment under the writers' direction. This experiment involved the use of 60 expert judges (including faculty members from several other schools), 40 student speakers, a professional cameraman, and half a dozen graduate students who were assisting with details. Major pieces of equipment included a backdrop, flood lights, tape recorder, motion picture camera, a heavy electrical cable, etc. Also, a large electrical clock with a sweep-second hand was purchased so that the exact time for all phases of the experiment would be automatically recorded by the camera. Many weeks of planning and organizing preceded the day of the experiment—three adjoining classrooms were reserved;

each judge, speaker, and assistant was contacted two or more times; transportation, and even baby sitters, were provided for some of the judges. Everyone was promised that the experiment would require not more than an hour and a half. About noon of the final day the experimenters held a conference to check plans once more, and someone happened to think of one small item previously overlooked—a *nail* for the clock. Now, suppose that this apparently unimportant detail had been forgotten until time to set up the rooms for the experiment. The janitor was often hard to find, and he might not have had any nails; there was no hardware store in the immediate vicinity. More than 100 people might have been kept waiting for from 15 minutes to half an hour—some would probably have been irritated, some would probably have had to leave at the end of the promised hour and a half. Thus, the entire elaborate plan might have been lost, all for the want of a common nail.

The best advice, then, for the gathering of data is this: (1) plan the conduct of the experiment in minute detail, and (2) carry out that advance plan with meticulous thoroughness. If at all possible, provide for a trial run in order to eliminate any possible “bugs” from the advance plans.

Despite precautions, of course, something may unexpectedly happen which requires an impromptu change of plans, and all such incidents should be scrupulously reported later by the experimenter.

In the final report *all* data gathered must be accounted for. If the scores for any subjects are omitted from the final tabulation, the investigators must explain those omissions. Omissions may be justified on such grounds as technical failures of recording apparatus, or defective copies of test. If omissions are to be made in order to “round out” the *N* for statistical convenience, then extreme care should be taken to insure that such removals are made completely at random.

IV. PROCESSING THE DATA

In experimental method “processing of data” generally means the use of tables, graphs, and statistical formulas.

A. USE OF TABLES AND GRAPHS

The first step is to tabulate all the raw data, i.e., to record systematically each score by each subject on each test; but this is likely to result in a bewildering array of several pages with several columns of numerals. Therefore, the second step is to get the data into perspective by putting them into a series of summarizing tables. These summarizing tables will show gross trends and the shapes of the distributions, but such trends and shapes can often be seen more clearly if the tables are translated into graphs. There are many types of tables and graphs, samples of which are provided by most textbooks on statistics, and the student should devote

considerable time to the selection of the types most appropriate for his data.

Tables and graphs often present special problems in reporting experimental studies. One suggestion is that each table or graph should, insofar as possible, stand alone, i.e., the caption, column heads, and other symbols should suffice to explain the table or graph with minimum help from the text. Another suggestion is that tables of raw data, tables to show details of statistical calculations, and the like, should be placed in the Appendix; tables and graphs accompanying the text should in all cases expedite, not clutter, the textual presentation.

Tables and graphs, by inspection only, will provide perspective and orientation, as well as clues to some of the possible findings. For further analysis, it is necessary to treat the data statistically.

B. USE OF STATISTICS

In terms of their statistical backgrounds, graduate students doing experimental research in communication may be divided into three main groups: (1) those with adequate or even extensive background, (2) those with a small background, such as one introductory course, and (3) those with no previous training at all. For a student in the first group the advice is to consult first with his Guidance Committee regarding his proposed statistical procedures; then to go ahead with the computations, being sure to preserve the work-sheets; and, if possible, to secure another qualified statistician to spot-check the work-sheets for accuracy. Ideally, of course, the students in the second and third groups should be advised to take more course work in statistics, but that suggestion is often impractical. The next best thing to do is to hire a professional statistician. Hiring a statistician is ethical provided that the student thoroughly understands why certain formulas have been chosen for his study, and provided that he thoroughly understands the meaning of the results obtained by use of those particular formulas. Understanding can be achieved through consultation with the statistician and through readings which the statistician can recommend. For such conferences and readings to be of maximum benefit, the student should do some advance preparation. If the student has had no course work, he should first read an introductory statistics textbook. An excellent text for this purpose is that of G. Milton Smith.²⁷ The text is relatively brief; the illustrative materials are clear; and the style is non-technical.

Regardless of who does the calculations the student should be able to provide his Guidance Committee with a complete set of work-sheets. Each work-sheet should have a descriptive caption to permit easy identification; column headings should not be slighted; and the principal steps in the computations should be indicated in such fashion as to facilitate spot-checking by members of the committee. It is usually best to use large-size accountant's paper for the work-sheets.

As was suggested above, the first statistical task in a given study is to choose appropriate formulas and, as was also pointed out previously, all or most of these formulas should be chosen while planning the experimental design. Viewed in perspective the purposes that can be fulfilled by statistics are relatively few. Thus, Peters and Van Voorhis list six major functions of statistics: (1) to show the shape of the distribution, (2) to show the central tendency, (3) to show how widely the data are spread, (4) to show the relation of two or more sets of data to each other, (5) to show the reliability of measures, and (6) to translate measures into forms with standard meanings.²⁸

In the foregoing list the fourth and fifth items are the most crucial in experimental studies because the goal of experimental research is to find predictable differences and/or resemblances between variables. The experimenter processes data statistically in order to show differences and resemblances between sets of data, and to show them quantitatively. Then, he applies additional formulas in order to estimate whether a given difference or resemblance is great enough to be significant.

There are numerous formulas for testing the significance of differences and resemblances, and many of these formulas have been devised to test what is called a *null hypothesis*. A null hypothesis is a statement that a given difference or resemblance occurred by chance alone, i.e., that the real difference is *null*. Another way of stating a null hypothesis is that, if the experiment were repeated many times, drawing successive samples of subjects by random selection from the same population (same with respect to the variable measured), the differences arising from such random selections would suffice to account for the actual difference observed in the present experiment. Theoretically, of course, *any* difference or resemblance could conceivably arise by chance. Therefore, a statistical formula must give an answer in terms of *degrees* of probability or improbability.

Illustrations of the application of the null hypothesis are numerous in recent experimental literature in communications. For example, McCoard and LeCount²⁹ chose a group of 50 college students with very high silent reading scores, and another group of 50 students from the same college with very low silent reading scores. All 100 subjects were then tested and scored upon their oral reading ability. The mean of the oral reading scores for the good silent readers was 40.8; for the poor silent readers the mean was 31.0. The difference between the means was 9.8. Applying the null hypothesis, the experimenters inquired, "What are the probabilities that this difference of 9.8 could have arisen through random sampling?" They applied the appropriate formulas, and discovered that the chances were less than one out of one thousand that this difference was due to chance. On the face of it, the experimenters could reject the null hypothesis with almost complete confidence, saying to themselves, "Since there is only a remote possibility that this difference could occur by chance, we can

feel free to offer some other explanation." But suppose that these experimenters had found a much smaller difference?

Experimenters have generally agreed that, if the probabilities are less than one out of one hundred that a given difference or resemblance could have occurred by chance, then the relationship may be described as "very significant," (or significant at the .01 level of confidence); if the probabilities are between one and five out of one hundred, then the relationship may be called "significant" (or significant at the .05 level of confidence); if the probabilities are greater than five out of one hundred, then the issue is in doubt and the relationship may be described as "statistically insignificant," or "significant only at the such-and-such level of confidence."

Returning to the illustration from McCoard and LeCount, let us suppose that they had found a difference which was significant only at the .15 or .20 level of confidence. They would probably conclude that there was insufficient evidence on the basis of their experiments to justify predicting a positive relationship between silent and oral reading ability. They should *not* conclude that the discovered difference was due to chance, nor that there is no real relationship between the two variables. As Guilford says, "We cannot prove the truth of the null hypothesis; we can only demonstrate its improbability."³⁰

After your data have been treated statistically you have one important piece of information: you know to what degree your findings might be attributed to chance. But statistics cannot provide you with alternative explanations. More important than your knowledge of statistics is your knowledge of the character of your data, and your ability to reason from those data.

V. DECIDING UPON CONCLUSIONS, INTERPRETATIONS, AND IMPLICATIONS

The conclusions in an experimental study may be roughly defined as the answers to the questions posed by the experimenter's problem. More technically, conclusions may be defined as inferences drawn directly from the data and within the limits of the experimental design, the statement of which proposes answers to the questions comprising the experimental problem. Interpretations may be defined as statements that describe or explain the process of reasoning by which the experimenter reached his conclusions and implications. Implications may be defined as inferences based upon the data but not necessarily confined to the limits of the experimental design, the statement of which suggests possibilities for practical application or for further research.

The definitions of all three terms may be illustrated by citing a paragraph from the work of Thistlethwaite, Kemenetzky, and Schmidt,³¹ who conducted an experiment to test the hypothesis that explicit refutation of opposing arguments tends to reinforce the opponents' attitudes. Two types

of explicit refutation were used: (1) *Two-sided context* (in which the opposing arguments were first stated and then directly refuted), and (2) *One-sided context* (in which the opposing arguments were not stated although they were directly refuted). After presenting the data pertinent to the hypothesis, the authors included the following discussion:

Explicit refutation in a *two-sided* context appears to elicit antagonism among opposed members of the audience. However, there is little evidence that this is true in a *one-sided* context. One interpretation of these results is that elaboration and discussion of opposed arguments increases awareness on the part of members of the audience that there are at least “two sides” to the issue. Under these conditions the audience may expect and prefer prudence in drawing conclusions. Explicit refutations may thus seem inappropriate and biased if the issue seems moot or debatable. One way in which this interpretation might be partially checked is to compare subjects listening to one-sided and two-sided presentations with respect to their preference to suspend judgment on the issue in question.³²

The first and second sentences in the above citation are examples of *conclusions*; the third, fourth, and fifth sentences are examples of *interpretations*; the sixth sentence is an example of an *implication* for further research.

A researcher is expected to make interpretations, draw conclusions, and suggest implications; but it is important that he should clearly realize which of the three he is doing at any given point. Two major and opposite dangers should be avoided. On one extreme, there are students who are too cautious, too fearful of “sticking their necks out”: they are the ones who try merely to present their data, and leave it up to the reader to do all the rest. On the other extreme are the students who are too enthusiastic: they go beyond their data, listing implications among their conclusions.

In deciding upon conclusions, interpretations, and implications, the experimenter is exercising his powers of reflective thought. A major pitfall to avoid is that of thinking in terms of simple cause and effect. To illustrate this pitfall, let us suppose that you have compared a group of stutterers with a group of non-stutterers, and that one of your measurement techniques has been a personality test. Let us further suppose that you have found that the stutterers seem to have significantly greater maladjustment scores. The “obvious” conclusion might appear to be that these maladjustments have *caused* the stuttering, i.e., that stuttering is merely a symptom of these deeper emotional problems. But how do we know that the reverse is not true? Perhaps the stuttering has caused the emotional maladjustments. As you contemplate this dilemma, a third alternative may suggest itself: perhaps some yet unsuspected variable (let us say, a vitamin deficiency) may be the cause of *both* the stuttering and the personality quirks. By this time a fourth (and rather complicated) possibility arises: perhaps the stuttering and/or the emotional maladjust-

ments and/or both, are “caused” by some *combination* of the foregoing and/or other suspected or unsuspected variables.

The difficulties of simple cause and effect reasoning may be illustrated in another way: choose any simple response by anybody, and start tracing back the “causes.” For example, what caused you to attend a given class? Well, you registered for it and paid for it. What caused that? It was required of all speech majors. Now, we must branch out in two main directions: (1) what caused you to become a speech major? and (2) what caused this course to be required? The first question will carry you back into your childhood, the predilections of your parents, etc. The second question will carry you back through the entire history of education. And so it would seem wise for any researcher to avoid such oversimplified reasoning as “delayed speech is caused by parental neglect.”

Two acceptable ways of avoiding the pitfall of simple cause and effect reasoning follow. First, the experimenter may report his findings in terms of covariance, i.e., instead of saying that this caused that, he says that the two phenomena varied concomitantly to such-and-such a degree. Second, the experimenter may report his findings in terms of multiple causation, i.e., instead of saying that this is the cause of that, he says that this is probably one factor in the syndrome of causes.

It is only natural that most graduate students begin their research with enthusiasm and with the secret conviction that their findings will be revolutionary. So they are disappointed when they reach the stage of listing their conclusions, and they discover that it is necessary to qualify almost every conclusion by such words as “it appears,” “it seems,” “probably,” or “there is a trend.” They are even more disappointed if their conclusions are largely negative. Suppose, for example, that a student thinks he has invented an improved method for a certain type of speech therapy; that he plans what seems to be the best possible experimental design within which to compare his new method with the old; that he is dismayed to find that his new method appears to be substantially less effective than the old. Is that student right in feeling that he has failed to make a positive contribution to the field? Obviously not—there were positive results favoring the old method. Or it may be that his data were completely distorted by some major flaw in the experimental design which could not have been discovered without performing the experiment. If any student begins with a significant problem, and carries out the intervening steps rigorously, he need not worry about the possibility of indecisive or negative results. The important question is whether the results are true and accurate, not whether they are “positive.”

Every experiment involves a big research gamble. When one considers how difficult it is to formulate a problem which will include the truly crucial issues, to plan a workable experimental design despite the many required choices and compromises, to enforce controls upon human subjects, to avoid serious statistical errors, the wonder is not that the con-

clusions must be qualified—the wonder is that there are ever any conclusions at all. Once in a while, a successful experiment is so audacious in its design that one thinks of the proverbial bumble bee which according to the laws of aerodynamics cannot fly.

Research conclusions should not be viewed as finalities. Every conclusion carries the implication, “If this experiment were repeated the probabilities are such-and-such that the same results would be obtained.” Every conclusion may be viewed as a hypothesis, challenging other workers to apply new tests. Ideally, the end of one experiment should become the beginning of another so that the endless spiral of scientific inquiry continues with renewed momentum.

VI. PREPARING THE WRITTEN REPORT

The conventional organization of a thesis or dissertation to report an experimental study follows:

Chapter I. The Problem and Review of Literature

A. Introduction

B. Statement of problem

C. Review of literature

1. To show relation of this study to previous studies

2. To show significance of this study

D. Definition of terms

E. Preview of remaining chapters

Chapter II. Subjects, Materials, Procedures

A. Subjects

B. Materials

C. Procedures

Chapter III. Presentation and Interpretation of Data

A. Captions for sections to correspond with subdivisions of the problem-statement

B. Conclusions succinctly stated near end of each section

Chapter IV. Summary, Conclusions, Implications

A. Summary (no new materials)

B. Conclusions (numbered and listed; restated as suggested from III-B above)

C. Implications (practical applications or suggestions for future research)

The foregoing organizational scheme is, of course, subject to adaptations. For example, in some studies it may be necessary to present the definition of terms before the statement of the problem; in some studies it may be wise to devote a separate chapter to review of the literature.

Many students have trouble getting started on the written report. This may result from trying to begin with the introduction to chapter one—the student is so impressed by the magnitude of the occasion that his style becomes wordy, stilted, or pompous. A suggestion is to begin by writing

the chapter on subjects, materials, and procedures, striving only for accuracy and clarity.

Further suggestions on writing a research report are given in Chapter 15.

ANNOTATED EXAMPLE OF EXPERIMENTAL RESEARCH

The major steps that have been recommended for accomplishing an experimental study may be illustrated from the work of Kretsinger.³³

Formulating the problem. Many public speakers and actors have thought that restlessness in an audience indicates lack of attention or interest; Kretsinger wanted to explore this idea experimentally.

A review of the literature showed that the answer to this general problem was not yet known, i.e., a predictable relationship between audience interest and audience movements had not been demonstrated by controlled phenomena.

A solution of the problem would obviously be significant to many areas in the field of communication—public speaking, theatre, radio, television, oral interpretation, motion pictures, and even perhaps written communication. To make objective measurements of the heretofore subjective behavior of “attention” would certainly be a valuable contribution to our field.

The biggest hurdle was that of feasibility. Kretsinger had learned firsthand from previous research that audience movement cannot be accurately estimated by simply watching and taking notes. The face validity of such estimates seemed satisfactory but the reliability was found to be poor when two fellow graduate students independently observed an audience, watching for bodily movement and systematically recording their observations on prepared cards—the records of the two observers disagreed widely.

Kretsinger believed that he could construct electronic equipment (by modifying and elaborating the principle of a burglar alarm) that would accurately measure gross bodily movement of an audience. For several months he worked on the construction and testing of this electromagnetic movement meter. A single strand of wire was attached in a concealed way to the backs of a row of chairs; this wire extended through a hole in the wall into an adjoining room where it was connected to the “wobble meter.” In testing, Kretsinger requested his subjects to turn heads, to cross legs, to lean forward one inch, two inches, etc., while he checked to see if the amount of movement by the pen on the machine was proportional to the amount of movement by the subjects. The building of this instrument was part of Kretsinger’s research but this work illustrated creative method, not experimental method. The creative method was used to make the experimental problem feasible by providing a way to secure reliable measurements of audience movement.

Kretsinger stated his problem as follows:

It was the purpose of this study to determine (1) if it were possible to devise a technique for measuring bodily movement within an audience, and (2) if such a technique could distinguish between broad levels of audience interest.³⁴

These two purposes can readily be put into question form. The second can also be put into the form of an hypothesis.

Planning the experimental design. The hypothesis was that gross bodily movement is correlated with audience interest. Kretsinger deduced from the hypothesis that when an audience is interested in non-humorous materials, they will sit quietly; when an audience is bored, they will become restless.

The experimental variable was to be the stimulus materials, some interesting and some dull. Kretsinger decided to use sound recordings. He deliberately chose one obviously interesting selection (a portion of the Ed Murrow album, "I Can Hear It Now"), and one obviously boring selection (part of a poorly read radio lecture on the planting and care of gourds).

To control the experimental environment, the main precaution was to eliminate non-experimental independent variables that might distract the subjects' attention or influence their bodily movement. Therefore, the testing room was stripped of decorations and other extraneous objects; the chairs were chosen to permit comfort without lounging. As a further precaution the adjoining equipment room was separated by a one-way glass, permitting the experimenter to watch his subjects without being seen by them. No unusual incidents were observed.

The subjects comprised 15 audiences, 5 to 10 each, totalling 92. Although 15 audiences were used, the experiment was a single-group design: the object was not to compare the audiences but to accumulate a large sample—data for all 92 subjects were later combined.

Most of Kretsinger's planning of his proposed observation and recording has already become clear. One important additional step was the construction of a rating scale to be marked by the subjects to express their subjective ratings of the interest-value of each recording.

The anticipated statistical procedures were simple: compare the differences between the interesting and the dull recordings with regard to (1) subjective ratings, and (2) objective measures of bodily movement. If both differences were significant, and if both were in the predicted direction, the hypothesis would be sustained.

Gathering the data. After spending more than a year in formulating the problem and planning the design, the gathering of the data required only a few hours. In this respect Kretsinger's study illustrates a difference commonly found between experimental studies and those by other methods. In a historical study, for example, the problem is often formulated and the procedures planned in a few hours, while the gathering of the data may take many months.

Processing the data. Kretsinger's raw data consisted of (1) a stack of rating scales, and (2) many yards of paper tape from the movement meter. Then came the laborious task of counting ballots, measuring wiggly lines, tabulating, and re-checking. Averages were computed and appropriate statistical formulas applied to test for significance of differences. Various tables, charts, photographs, and photostats were prepared.

Deciding upon conclusions, interpretations, implications. The differences in responses to the interesting and the dull recordings were in the predicted direction, and the differences were statistically significant far beyond the 1% level. The conclusion seemed justified that the movement meter does distinguish between very interesting and very dull materials.

The recordings used by Kretsinger were deliberately "loaded" so that you would not need an electronic device to find out that one was more interesting than the other. Therefore, an obvious implication for further research was to test the machine's ability to distinguish between small changes of attention or interest. This was done by Harry M. Lyle,³⁵ who used an ingenious technique to provoke a gradual decline of interest. Lyle recorded an ordinary two-minute speech by a beginning student, and then played the same speech over and over again for his audiences. The movement meter revealed a significant increase in the listeners' movements as the number of repetitions increased.

Example of a practical implication from the studies by Kretsinger and Lyle was that after the "wiggle meter" has been further tested and improved, it might well become a permanent installation in theatres, auditoriums, and studios where measurement of audience attention is desired.

STRENGTHS AND WEAKNESSES OF EXPERIMENTAL METHOD

In comparison with other research methods common to the field of oral communications, the experimental method has certain inherent advantages.

Objectively. By its nature the experimental method provides for a maximum of direct, first-hand observation; and for a minimal gap between observed fact and reported fact. The reliability and validity of experimental data do not depend upon faith in the researcher's ability—experiments can be replicated by others for purposes of verification.

Prediction. Other research methods can describe or evaluate. Only the experimental method can make predictions.

Control of phenomena. Other research methods can call for control of the observer and of his observations; only experimental goes further and requires control of the phenomena being observed. This implies that experimentalists can at least hope to account for *all* relevant factors.

The principal weakness of the experimental method is that its rigorous requirements impose severe limitations upon the types and the scope of problems to which it may be applied. It cannot be applied to past events

which are important to our field. It cannot be applied to unique events which cannot be replicated. It cannot be applied to events where the controls would distort the behaviors to be studied. It cannot be applied to events of such complexity or scope that control of variables is impossible.

Inherent weaknesses should not be confused with dangers or misuses. For example, inadequate or unrepresentative samples are the latter, not the former.

EVALUATION OF EXPERIMENTAL RESEARCH REPORTS

When you are reading an experimental research report, you should question every part of it.

Title. From the standpoint of future students consulting indexes and bibliographies: Does this title identify the method, the research area, and the research problem? Is the wording precise, concise, and scholarly? Or is the wording vague, ambiguous, cluttered with non-essentials, grandiose, unnecessarily technical? Would this title be *misleading*?

Statement of the problem. Was it stated at all? Was the scope so delimited as to have become trivial? Was the scope so unlimited as to have become unanswerable? Was the wording clear, accurate, and precise? Was the problem put in question-form? If not, can you readily translate it into question-form? Was the problem stated without apparent bias? Or did the experimenter unwittingly reveal that he began his research with a pre-conceived theory which he intended "to prove"? Could the problem have been better answered by use of some other research method?

Review of the literature. Did the experimenter include any review at all? Did he imply that his research was so original that no previous studies needed to be considered? Was the review routine, scanty, incomplete? Were relevant sub-topics neglected? Were indexes from cognate fields (such as psychology, education, sociology, medicine) overlooked? Was the bibliography "padded"? Was the review organized or was it just a "string of beads"? Did the review show the relation of this study to previous ones? Did the reviewer evaluate previous work fairly and objectively? Did he indulge in unnecessary or unscholarly critical remarks?

Experimental design. The design for the study should be clear to the reader by the time he has read the section or chapter entitled "Subjects, Materials, Procedures" (or similar title). At this point an over-all question may be asked: "In general, was this design the product of a long period of careful planning? And did the experimenter seem to be aware of all the major steps involved, together with the pitfalls to be avoided at each step?" Next, the reader may evaluate important details of the design.

What was the experimenter's hypothesis? Was it clearly stated or clearly implied? What deduced consequences did the experiment put to test? What major assumptions did the experimenter make?

Who were the subjects and how were they selected? Was this a single-

group or a multiple-group design? If the latter, were the groups sufficiently equated? Did this experiment require that the groups be representative of the population from which they were drawn? If so, what precautions did the experimenter take to insure representativeness? Were the groups large enough? (Rule of thumb is that 30 is the statistical dividing line between small and large samples).

What was the independent variable(s)? Was only one variable manipulated at a time? In manipulating the experimental variable did the experimenter unwittingly change other independent variables?

What was the dependent variable(s)? How were observations of this variable made? How were the observations recorded? How was the dependent variable(s) measured? Was any instrumentation used? Should it have been used?

What controls were imposed? Did these controls distort the experimental situation? Did the experimenter overlook important variables which should have been controlled?

Did the experiment have an advance plan of procedures in detail and in proper sequence? Did the experimenter rigorously follow this plan? Was a "dry run" possible and, if so, was it tried?

In the written report did the experimenter describe his subjects, materials, and procedures in sufficient detail so that other students might repeat the experiment?

Presentation of data. Were all necessary data gathered? Were all necessary data reported? Were tables carefully constructed; were captions, column headings, and other labels adequate? Were graphs, charts, photographs, or photostats used? Were any of them unnecessary? Were any data presented in the text? If so, was the exposition clear? Did the experimenter show good judgment in deciding upon what data should be relegated to the Appendix?

Processing of data. How did the experimenter compile and tabulate his raw data? Did he need an explanation of statistical formulas and, if so, did he explain them satisfactorily? Was there any evidence of overuse or misuse of statistics? Did he cross-check, double-check, or spot-check his tabulations and computations for accuracy? Did he need or use any non-statistical techniques in processing his data?

Interpreting the data. Did the experimenter seem to understand the limitations of his statistical procedures? Or did he make naïve overstatements, such as "this showed [or proved] conclusively that . . ."? Did he demonstrate a thorough understanding of the characteristics of his data? Did he reason logically from his data to his conclusions? Did his conclusions go beyond the data? Was he too cautious in drawing his conclusions? Did he recognize the difference between conclusions and implications? Did he understand the dangers of simple cause and effect reasoning? Did he warn the reader of possible weaknesses in his study?

SUMMARY

Experimental method is characterized by controlled observations, controlled phenomena, and predictions.

The principal steps in conducting an experimental research are: (1) formulate the problem, (2) plan the experimental design, (3) gather the data, (4) process the data, (5) decide upon conclusions, implications, interpretations, and (6) prepare the written report.

An experimental problem must provide an hypothesis which can be tested by making events occur under the control of the experimenter. The experimenter must be able to control these events in such fashion that only one variable at a time is changed. The experimenter must be able to measure what happens when he deliberately changes one variable, and these measurements must be valid and reliable. The experimenter must usually make and qualify his conclusions in terms of statistical probability. He is expected to suggest interpretations and implications which reflect his insight into the nature of his data. His written report should be clear, accurate, brief, and should follow an hypothesis-test-conclusions sequence.

Inherent strengths of experimental method are those resulting from its objectivity, its ability to predict, and its provision for controlling the phenomena being studied. Inherent weakness is that many important problems cannot be brought within the requirements of experimental method.

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CHAPTER 11

The Survey Approach

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INTRODUCTION

After a candidate has selected a problem for research and has made a careful study of previous research in the field, he has an important choice to make. Out of the many ways of solving a problem, he must select the method which provides the best technique for securing the data essential for the solution of his particular piece of research. Good, Barr, and Scates¹ point out that there is no "best" type of research. Each kind of research may be "best" for a particular purpose. The research candidate will be well advised to investigate thoroughly the kind of methodology that best suits the solution of his problem. Among other approaches to be considered, either alone, or in conjunction with others, is the survey.

DEFINITIONS

Definition of the Survey. The survey, known also as the normative survey, is, as its name implies, essentially a method for collecting and interpreting facts or opinions. The methods treated in this chapter are the questionnaire, the interview, and the job analysis. Library surveys and case-study techniques, two other survey methods, are discussed in Chapters 3 and 12 respectively. These methods may be used independently or collectively to answer questions about existing conditions, practices, or procedures.

A questionnaire is a printed form which is submitted to a random or selected population. It contains questions concerning a specific topic or topics about which the investigator wishes opinions, information, or facts.

An interview, as restricted in this chapter, is a meeting between a reporter and a person whose views, opinions, and information are to be the subject of systematic questioning which will provide the reporter with sufficient information to draw his conclusions.

A job analysis is a study of an occupation or an aspect of an occupation with respect to responsibilities, activities, hazards, and benefits.

USES OF THE SURVEY

The survey is concerned with collecting facts about a current existing situation and interpreting them. The development of the survey has been especially marked in the present century. Heretofore research workers were primarily interested in what *had* been done. Now they are eager to evaluate what is *being* done and to interpret their findings in the light of past history and present needs.

The survey seeks to answer questions about prevailing conditions. The superintendent of schools who wants to find out the number of speech defectives, for example, in cities of a size comparable to his own, may utilize the survey method to ascertain the number and kinds of speech defects and the procedures for therapy. The speech therapist who wishes to know what methods of follow-up are used in hospital and other speech clinics may make a survey to determine the kind of cases, the length of time devoted to therapy, and the procedures used in obtaining information after the patient has left the clinic. The research student who wishes to know the kind of speech text-books used in high schools in a specific geographical area may conduct a survey to ascertain the number and kinds of books as well as the chapters stressed, if he so desires.

The survey may be thought of as a status study; actually it must transcend fact-getting. A survey of numbers in speech clinics, for example, would be of no value unless it was accompanied by an interpretation of the data. The value of such a study might lie in the pointing up of practices that were above average. Such a study might show that the utilization of specific equipment resulted in more effective outcomes than those obtained in groups of the same size that lacked equipment. The shortcomings of antiquated or inadequate equipment or over-large clinics that might otherwise be taken for granted or overlooked might attract criticism on a well-interpreted survey.

STRENGTHS AND WEAKNESSES OF THE SURVEY

One of the advantages of the survey is that it deals with practical problems. The survey also supplies information that would otherwise be difficult to obtain. Increasingly complete and worthwhile data may be secured by making continuity studies at various intervals. Studies of shifting populations in speech clinics might be made at fairly wide intervals whereas progress studies with aphasics or cerebral palsy cases might be made at more frequent intervals. It is thus possible to obtain a sequence of studies on aspects of therapy, costs of speech clinics, costs of educational television, clientele of speech clinics, or any other practical problem. The professional dissemination of information that cannot be derived in any other way may be highly useful to subsequent researchers or to the handling of practical problems in a school system or community.

The major criticism levelled at the survey method is that it is superficial or that it is merely fact-getting. This criticism sometimes appears to be justified, but is the result of a failure to make good use of the survey method rather than a criticism of the survey method as such. The kind of fact-getting that an efficient secretary can do should not be regarded as research. The facts must be adequately and accurately interpreted before the survey method may be considered seriously as a method of research.

Whitney² points out that “. . . the report is not research unless discussion of these data is carried up onto the level of adequate interpretation.” The piling up of facts, no matter how tenaciously they have been gathered, does not constitute real research. Graphs, elaborate tables, all sorts of statistical devices are meaningless until the researcher breathes the breath of life into them through finding out what they mean.

The criticism is commonly made that the survey represents a pooling of ignorance. This criticism will not be justifiable if the researcher uses the instruments of his research wisely and thoroughly; if he makes every endeavor to interview those cognizant of the field or to interrogate the most likely population he can obtain; and if he refrains from mere tabulation, but scrutinizes every item of his data for complete and accurate evaluation.

Some surveys are so extensive in scope that they defeat their own purpose. On the other hand, a number of topics may be seriously limited by a failure to enlist the cooperation of the most valuable part of the population the researcher needs to reach.

PERSONAL CHARACTERISTICS

Before he decides on a problem or a method of procedure, the graduate student should take an inventory of his own preferences. If he dislikes meeting people or interviewing, he should by all means avoid the interview method as part of his research; in order to interview successfully, the interviewer must have an outgoing personality and be genuinely interested in people. If he is going to use the questionnaire method, he must not object to problems of follow-up and correspondence. If he is going to give tests, he must be familiar with testing procedures.

Many researchers select the survey method because they think it does not require statistics or that it requires a minimum of statistical treatment. Herein lies the weakness of many surveys that treat only measures of central tendency rather than correlations or more involved statistical treatment.

Since surveys are used to gather data about practical problems, they appeal to people who are interested primarily in such problems. Hence, the researcher interested in experimental studies or creative writing should avoid the survey method. The one who is interested in the administration of programs will find the survey more attractive because it is likely to yield results that an administrator can do something about.

The more thoroughly the graduate student thinks through the requirements of the type of research he wants to do in respect to his own personality, the more successful he is likely to be. He must have some insight into his own likes and dislikes in order to avoid the frustration that must follow in pursuing a kind of methodology that is alien to his own personality.

INSTRUMENTS EMPLOYED BY THE SURVEY

The main tools used in the survey type of research are: the questionnaire, the interview, the case-study or group-case-study; job analysis; and library or documentary study. Obviously, more than one of these instruments may be used in the same piece of research. A questionnaire may supplement an interview, or vice versa. Sometimes it is feasible for a researcher to interview every member of the population he intends to interrogate. Sometimes such a procedure is not feasible because of geographical spread, monetary considerations, time limits, accessibility of the respondents, or other reasons. There have been many studies completed wherein the researcher interviewed a certain segment of the population personally and sought the opinions of others through questionnaires. In an extensive study where the research is supported by adequate funds, trained interviewers may be employed. They may follow up inconclusive or inaccurate statements on questionnaires or clarify questions that were not understood by the respondents or merely interview larger numbers than could otherwise be reached.

The Questionnaire. Once it has been decided that the employment of a questionnaire is the best, or perhaps the only, way to secure the data for the solution of the problem, the candidate must analyze his problem thoroughly before he formulates the individual questions to be used in the questionnaire. He must reduce the problem to a series of specific sub-problems. Each sub-problem will represent an aspect of the main problem. The answers to each of the sub-problems, when they have been considered together, should provide an adequate solution for the main problem. Each sub-problem will represent a specific research task that must be carried out successfully before the main problem can be resolved. In formulating the questions on a questionnaire, the researcher must think in terms of sub-problems rather than in terms of the main problem. He must determine exactly what information must be derived to solve the sub-problems and then design a set of questions that will secure that information. Creating questions for sub-problems encourages the formulation of questions that are highly specific. Specificity, in turn, reduces the chances of equivocal questions appearing on the questionnaire.

With the development of each question the candidate should check to see whether or not the information answering that question exists in other sources.³ This step necessitates the examination of related studies that

have previously been made. It is possible that a particular question has been answered elsewhere in a more reliable manner than can be accomplished by the questionnaire method. Before including a question in his inquiry form, the candidate should make certain that it has not been investigated adequately enough to satisfy the demands of his study. The elimination of questions already answered lessens the task imposed upon the respondent in completing the questionnaire. The briefer a questionnaire the more likely is the respondent to return it with the desired information.

Koos⁴ recommends that each question should be evaluated in terms of two criteria, *ability* and *willingness*, in order to secure high reliability in the answers. The criterion of ability concerns the extent to which a respondent, by virtue of his professional preparation and experience, can supply a reliable answer to a question. Each question must be considered in terms of the population that is to be interrogated.

The following question would be a poor one if the questionnaire were being sent to principals of high schools which included speech correction programs in their curricula:

Is manual manipulation as described in “moto-kinaesthetic” methodologies employed in teaching articulation in your speech correction classes?

The principal of the school may possess sufficient interest and initiative to consult with his speech teachers about this question. Again, he may not. He may be so annoyed by the question that he does not think the questionnaire valuable enough to discuss with his staff. He may simply ignore the question because he does not have the requisite knowledge to answer it accurately. He may answer the question to the best of his ability in an earnest attempt to be cooperative, but he may be in error. The reliability of replies to this question from high school principals would be low. Conversely, the reliability of the answers would be much higher if the questionnaire were sent to speech correction specialists.

Ability also refers to the ease with which a respondent or his staff can supply the information requested by a question. Koos⁵ criticizes questions which request “derived data.” This secondary data can be produced only after the respondent has converted his “raw” or original data into a meaningful concept. The following inquiry would be a poor question to address to a director of a rehabilitation center:

What percentage of your cerebral palsied patients have been taught by your speech therapists?

A more tactful method of securing this data would be to include the following two questions on the inquiry form:

What is the number of cerebral palsied patients that have attended your rehabilitation center since its inception?

What is the number of cerebral palsied patients that have been taught by your speech therapists?

With the answers to these questions the researcher could assume the task of computing the percentage.

In evaluating his questions in terms of the criterion of the willingness of the respondent to reply, the candidate should imagine himself in the respondent's situation and try to anticipate reasons for hesitancy on the part of the respondent. He may hesitate to divulge facts of a highly personal nature. He may be loath to provide factual information which could be interpreted to the detriment of professional colleagues. A respondent may not desire to answer a question which requests an opinion on a debatable issue because he does not wish to commit himself professionally to a specific approach to the controversy.⁶

An easy method for the respondent to use in disposing of the troublesome question is not to answer it. Lack of replies will seriously endanger the validity of the findings of any questionnaire study. If such questions are essential to the research at hand, the candidate may be able to increase the willingness to reply by the utilization of certain techniques. A common device is to assure the respondent that he will remain anonymous by specifying that no signature should accompany the reply.⁷ Assuring him that his reply will be held strictly confidential may further reinforce the idea. He may be further encouraged to answer frankly and accurately if he has assurance that in case of publication the anonymity of his reply will be protected, and that if he is in any way identified, prior permission will be requested from him.⁸

In designing the questions for his inquiry form, the candidate must consider the time element involved in answering.⁹ A careful reply to a questionnaire necessitates the assumption of still another task for the already busy respondent. Any way that can be found to expedite the task for the recipient may prove helpful in securing his participation. The general question which requests opinions that can be expressed only by paragraphs of prose may irritate or discourage a person who is requested frequently to complete questionnaires.

There are various ways of casting a question so that the respondent can indicate a fact or an opinion with a minimum of writing.¹⁰ A commonly used technique is to design the question so that a list of multiple answers can be supplied. The respondent can select his answer and check it, underline it, encircle the number of the selected answer, or write the number of the chosen answer in a blank provided for the purpose. With multiple-choice types of questions it is a good procedure to include a blank space for a possible response by the recipient which has not been anticipated.

There may be some categorical questions for which an answer of "yes" or "no" is sufficient. Numerical or alphabetical schemes of ranking items listed in the questionnaire allows the recipient to express his opinion concerning the relative importance of the various items in a quick and easy fashion. Rating a series of items according to a gradated scale provided in the questionnaire permits the respondent to express numerous evaluations without doing an undue amount of writing. Rating scales may be so designed that the respondent can select one of the gradated evaluations

and indicate it by a letter, a number, or by a few words. Numerical weighting according to an arbitrary numerical scale of items under investigation enables the respondent to indicate his relative evaluations of the items being investigated.

Once the questionnaire has been completed, it is profitable to secure the reactions of experienced research personnel. They may be associated directly with the guidance of the research project. If so, they will doubtless offer criticisms. After the questionnaire has been evaluated and its shortcomings have been corrected, it can be tried out on some small population such as a class, or a club, or individuals in the immediate vicinity who represent a cross section of the population to be reached. Their reactions will help in the revising of obscure, ambiguous, repetitious, or irrelevant questions. It may be necessary to try out two or three versions of the questionnaire before a decision can be reached on the final form which will get the best results for an adequate analysis of the problem.

While the questionnaire is being designed, the candidate can embark upon steps to insure the fact that he will be able to reach the population essential for the proper interpretation of his questions. In conference with the experts in the field of his graduate research, he must reach a decision as to just what population needs to be interrogated to get truly meaningful answers to the questions being formulated. Once that decision has been made, the next logical step is to find out what proportion of the population will be willing to participate in the study. One means of ascertaining this figure is to send out what is known as a letter of transmittal. In this letter the purposes and scope of the study should be described together with a general statement of the methodology to be employed in carrying out the study. A self-addressed stamped envelope should be enclosed with the letter of transmittal as well as a simple form on which the respondent can indicate whether or not he will cooperate in the study.

Sometimes a letter written by a person of high professional standing who believes in the importance of the research project will do much to secure cooperation from the population to be interrogated. A good point to include in the letter of transmittal is a pledge that the results of the study will be sent to each cooperating recipient. Too frequently professional people are requested to participate in questionnaire studies without profiting by the findings of the study.

The candidate and his sponsors must decide on what percentage of replies is essential to the validity of the findings. Generally it is considered that a 50% reply to a questionnaire is acceptable. Any percentage above 50%, of course, further insures the representativeness of the findings. A technique to increase the percentage of replies is to utilize a series of follow-up letters. In these letters, the candidate can indicate politely that there is a deadline established for the return of the questionnaires and that since the respondent had promised to cooperate, a prompt reply would be appreciated. If this type of letter is not effective, a shortened question-

naire might be sent containing only the most vital questions pertinent to the problem. Sometimes this technique encourages the busy respondent to return the original questionnaire. At this juncture, enough replies should have been received so that the candidate will be able to gauge the necessity of securing additional questionnaires. It is almost impossible to procure a 100% reply to any questionnaire. In the interests of tact and public relations, it may be wise to cease bombarding reluctant respondents with requests.

There is an abundant and practical literature concerning the questionnaire. A candidate who contemplates embarking upon a questionnaire study of some problem in the speech field would do well to consult with the bibliographical sources listed in the bibliography at the end of this chapter. The wide dispersion of poor questionnaires has caused this type of research technique to fall into some disrepute, but there are certain kinds of problems that can best be solved by the utilization of a questionnaire.

The Interview. The interview, which may be used independently or to supplement a questionnaire investigation, may be described as a formal meeting arranged to accomplish a specific purpose. It is commonly called purposeful or professional conversation. The main difference in form between the interview and the usual questionnaire is that the investigator is usually present at the interview in face-to-face contact with the interviewee, whereas with most questionnaire studies, he is not present.

After he has decided upon the interview as the best method of securing information, the investigator should carefully delimit the purpose of the interview. He must decide whether he wishes to obtain facts, opinions, generalizations, evaluations, or interpretations. He must also know whether the basis of his inquiry is within the realm of personal knowledge of his interviewees or whether it is founded on hearsay. A teacher, for example, interviewed about a child in his class might have a great deal of personal knowledge of the case. However, information about the child's family or his rapport with the various members thereof might be hearsay.

The interviewer should formulate his questions with great care, avoiding especially implications which may result in an inaccurate answer. Questions should be written out; alternative questions should be prepared in case the interviewee is evasive or unable to answer the first question. Insofar as possible, questions should be memorized to avoid undue reference to notes. Over-use of notes and too obvious recording of answers may break down the rapport the interviewer has sought to establish. Since there are some persons who do not trust others to remember, however, the interviewer may have to write every word of the answer so the interviewee will not think that his time and ideas are being wasted. Ordinarily, it is desirable to record the interview immediately at its close, filling in gaps that have not been previously written.

The interviewer may fail through over-direction. That is, he may not elicit the facts he wants because of the type of question he uses. Another

failing is that he may not stress sufficiently aspects of the problem which the interviewee assumes to be generally known. What is obvious in the mind of a person who has dealt with a problem for a long time may not be at all obvious to the newcomer in the field.

Apart from learning a technique of interviewing and asking questions that will contribute most to the solution of his problem, the interviewer should be aware of the importance of other factors. Garrett¹¹ lists the following: (1) Physical setting of the interviews. She recommends a comfortable relaxed atmosphere with some degree of privacy and a minimum of interruption. (2) Recording. While there are some facts that must be written immediately, Garrett suggests minimizing notes until the conclusion of the interview whenever possible so that the interviewee will not be too disturbed at the thought that what he is saying is irrevocable. (3) Confidential nature of the interview. The interviewer will usually succeed in obtaining more information if he stresses the confidential nature of the interview. Persons who would hesitate to discuss problems, especially those of a personal or professional nature, with a stranger, will confide much more willingly if they know their confidence will not be betrayed.

There are some advantages to the interview over the written questionnaire. Those who dislike writing, especially in the frequently circumscribed pages of the questionnaire, may contribute much more in an oral interview than they would write.¹²

In many cases an interview team of two is more successful than a solitary interviewer. The interviewer explains the function of his assistant or recorder who then becomes as unobtrusive as possible, leaving the interviewer free to carry on the important work of the interview. The person being interviewed is frequently more relaxed under these conditions than he is if he knows he is saying an irrevocable word into a tape recorder.

The observant interviewer can judge by facial expressions, gestures, change in voice, and by inflection whether the interviewee is being forthright or guarded, honest or dishonest, frank or secretive. He can tell immediately whether there is a misconception in the mind of the interviewee and he can supplement his questions with others designed to elicit more accurate answers.

Pitfalls in interviewing sometimes occur from misunderstandings regarding exact meanings of terms. The interviewer should set the boundaries of the referents of words of high abstract qualities that are contained in the questions. Otherwise, the interviewee may be answering to the best of his ability a totally different question.

In many specialized fields such as speech a jargon develops to facilitate communication, but even within the jargon there are multiple possibilities for misinterpretation of symbols. For example, if the designations "cluttering" and "lalling" were embodied in questions, the interviewee might have a totally different concept of the disorders under discussion from that held by the interviewer. In conducting the interview, the interviewer can

supplement the terms with oral explanations if there is any sign of misinterpretation, whereas in the questionnaire he may find it wise to include a glossary if there is any doubt about exact confines of the terms.

Case-Study Research. The case-study technique, which is enlarged upon in Chapter 12 of the volume, is sometimes used in a survey type of research. It represents a complete analysis and report of the status of a particular individual, or group, with regard to specific phases of his, or its totality. A study, for example, of speech defectives that involved psychological and educational tests, physical examinations, family relationships, aptitudes, and other pertinent information together with an interpretation of this information would constitute a case-study of individuals. The same kind of research may be carried on with groups. Such research may extend over a considerable length of time and may constitute a continuity survey. In the field of speech, more use has been made of the status study than of the continuity survey.

Job and Activity Analysis. A methodology that is sometimes used in surveys is that of job analysis. When the survey has for its purpose the securing of data concerning specific jobs in order to develop organizational systems, to recruit newcomers to the field, to assist in the judicious selection of employees, to aid in the establishment of wage systems, to assist in the development of more effective working techniques and procedures, or to provide information for creating training programs, the techniques developed for job analysis may be used advantageously. For example, if one were constructing a curriculum for the training of speech therapists, one would need to make a thorough examination of the job as it exists throughout the country. A job description would need to be drawn up including the complete delineation of the duties, responsibilities, and working conditions related to the job. A job analysis would be needed, based upon the breakdown of the requirements in terms of such factors as skill requirements, responsibilities, mental, educational, and physical requirements, teaching or clinical conditions, and safety factors.

If one were an administrator in a state educational system, one might need to fix a fair rate of compensation for the job of speech therapist in relationship to all the other jobs in the state educational system. The factors cited above would be useful. It is necessary in job evaluation to compare one job with another so that various jobs can be arranged in a table of organization, wherein there is a progression based on types of measurement. With the utilization of such a table of organization jobs can be related to a salary scale and equitable wage rate differentials established.

Definitions of Terminology. The following definitions have been provided because the terms defined are sometimes used synonymously and at other times are used differentially in designating complexes of industrial or professional duties:

Position: A position is a complex of industrial or professional duties

that are carried out by one individual. There are as many positions as workers. For example, within a speech clinic three speech therapists doing comparable work occupy three different positions.

Job: A job is a complex of work tasks with specified responsibilities that differ from those of all other work tasks.¹³

Occupation: An occupation is a number of closely related jobs, i.e., a family of jobs.¹⁴ For example, a speech therapist is engaged in the "occupation" of "therapist," while his "job" is that of a "speech therapist."

Job Description: A written report detailing the information essential for identification of the job, the responsibilities, and the setting of the job is called a job description.

Job Specification: A job specification is a job description which includes detailed analysis of the requirements necessary for effective performance of the job.

Securing the Data. The analysis of jobs is based upon information that provides a complete picture of just what each task consists of, and what each job requires for a successful performance. There are a number of ways that enable the investigator to secure this information.

If the analysis is to cover a job that is distributed over a wide geographical area, an economical method of securing the information is the questionnaire. Questionnaires may be distributed to employees, supervisors, and other individuals whose functioning brings them in contact with the job being studied. By submitting the questionnaire to individuals other than the employee, the opportunities for securing complete and accurate information are increased.

Interviewing is another technique of securing job data. It is important that the employee understand why the interview is taking place and the general purposes of the investigation. This orientation will encourage cooperation on the part of the employee because he sees no disadvantage in responding in a frank and complete fashion. As with the questionnaire method, it is wise to conduct interviews with the supervisors of the employee and with the individuals who come in contact with him in his work.

Observation is a widely-used method of gathering information about jobs. The observer studies the functioning of the worker in the working situation. Based on his observations, the observer categorizes and enumerates all of the tasks that make up the job. It is important that the observer in his securing of the data disregard any preconceptions that he may have had of the job content. He may have formed such preconceptions because of his earlier experiences or through the reading of job descriptions. Observation is particularly valuable in gathering information about manual operations and the activities carried out by the worker.

Observation provides barren information concerning the mental tasks associated with a qualitative job. The analytical thinking that enters into the differential diagnoses made by a speech and hearing therapist, the creative thinking that is utilized by the public-school curriculum planner,

and the analytic and creative types of mentation demanded of the administrator in defining policies cannot be assessed adequately by the sole means of observation.

For some jobs, information may be secured by the scrutiny of the published duties and qualifications that are defined by an executive agency. For many governmental and educational jobs on the local, state, and federal levels, there are specifications that must be satisfied by any applicant. This kind of general information cannot provide the analyst with adequate data for a meaningful analysis, but it can be of supplementary value.

The utilization of one method of securing data about a job is usually not so effective as the utilization of a combination of methods. Data derived from a questionnaire may be incomplete or inaccurate because of misunderstandings on the part of the respondents. Interviews following the submission of a questionnaire may contribute in clearing up these misunderstandings. However, the use of interviews and questionnaires may provide the job analyst with a distorted view of the job. Conscientious individuals may unintentionally overemphasize the importance of their particular jobs in answering written or oral questions. Observations offer opportunities for validating the assertions of workers made on questionnaires and in interviews. On the other hand, observations often enable the job analyst to formulate meaningful questions for interrogating workers, or provide him with sufficiently detailed information so that he may profitably recast many questions on his formulated questionnaire.

Description of the Job. The step in job and activity analysis that is usually undertaken following the amassing of the data about a job is the writing of a job description. The purpose of the job description is to set forth clearly and succinctly the salient facts about the job.

The information that is essential for the identification of the job is customarily placed at the beginning of the description. The appropriate job title, code number, and the location of the job within the organizational structure appear here. It is important that the description bear a date because changes may take place in the duties of the job before analysis and evaluations of the job are made.

The delineation of the duties of the job comprise a major portion of the job description. Each duty is set forth in detail and incorporated into a logical arrangement of duties. For example, the duties of a speech arts teacher in a high school might be categorized under the following general headings: (1) Teaching responsibilities; (2) clerical responsibilities; (3) committee responsibilities; (4) advisement responsibilities; (5) supervisory responsibilities; (6) public-relations responsibilities; and (7) community responsibilities.

The third important section of a job description enumerates the requirements which a person must meet in order to be hired and to function successfully in the job. By statute or by administrative ruling there are

many jobs in education which can be filled only by persons who have the specific educational backgrounds and/or who have had certain training experience. Certain jobs are open only to those individuals who have had so many years of job experience. Then again, the nature of certain tasks associated with a job may demand specific abilities that do not accrue automatically as the result of pre-job education or training. No amount of formal training can assure the fact that a speech therapist will be able to function cooperatively with therapists of other disciplines in an integrated rehabilitation program. Yet the ability to cooperate in a team effort may constitute a prime requisite for the job.

This third section of the job description frequently is called the job specification and it is utilized by personnel workers in the selection of workers.

Evaluating the Data. Job evaluations are used in the establishment of equitable wage scales, in the selection of personnel for jobs, and in studies of organizational patterns that are undertaken with the intention of increasing overall efficiency.

One of the simplest methods of evaluation is the ranking of the jobs within an organization according to their evaluated importance. Working with the data contained in the job descriptions, the analysts compare the jobs to be ranked and construct an order of increasing importance. When the number of jobs to be studied is large, the analysts can select a few salient jobs and rank them initially. The other jobs within the organization can then be compared to these key jobs, and a table of organization based upon importance established. If the purpose of the analysis is to effect equitable pay rates in salaries or wages, the rates of pay for the key positions can be compared to those rates existing throughout the country for the same or comparable jobs and adjustments made. The level of earnings for the other jobs can then be set according to the rank order established by this comparison method.

Another method of job evaluation is based upon the setting up of various grade levels of jobs. The definition of such grade levels are necessarily broad. It is the task of the job analysts, using the data amassed in the various job descriptions, to subsume each job under a grade level. Within each classification level there can be additional structuring, and jobs can be ranked according to the importance and the demands of the jobs.

The factor comparison method of job evaluation involves the rating of each job in terms of specific factors. These factors are selected so that they embrace all of the significant requirements posed by the jobs being evaluated. Factors that are commonly used in these schemes of evaluation are skill requirements, responsibility, mental and physical requirements, and working conditions. Key jobs are then selected that adequately represent a cross-section of the spectrum of jobs to be evaluated. The key jobs are then ranked under each factor according to information contained in the job description. The salary or wage rate for each key job is then divided and apportioned under each of the above factors. The other jobs within

the organization can then be compared to the key jobs in terms of the factors utilized. Rates of compensation for these jobs can then be established under each factor. The total compensation for the job will be the sum of the compensations arrived at in terms of each factor.

Point rating schemes are also based on the selection of factors that encompass all the requirements presented by the jobs being evaluated. Such factors as skill requirements, responsibility, mental and physical requirements, and working conditions are sub-divided so that each job is evaluated in terms of perhaps twenty sub-factors. Usage varies in this respect. Some schemes are comprised of less than ten factors—while others may be predicated upon the use of thirty-five.

Early in the use of point-rating systems an equal maximal number of points was assigned to each factor, but it was found that such allocation was unsatisfactory in that some factors are more important than others in determining job values and should be given greater weight. The weightings given to the various factors are arrived at by the judgments of analysts based upon experience and trial and error. Varying techniques are utilized but the intention of all of them is to distribute the total number of points among the factors. The numerical range of points assigned to each factor is subdivided according to degrees that measure the distinct levels of each factor existing in the different jobs to be evaluated. The point-rating scheme permits one job to be compared to another in terms of job value so that equitable rates of compensation can be determined.

EXAMPLES

Questionnaires, interviews, and job analyses have been utilized in fundamentals, public address, interpretation, radio and television, theatre, speech and hearing disorders, and speech education.

An interesting example of a thesis that combines the questionnaire-interview method is in the area of Radio and Television. The author, Tom C. Battin,¹⁵ was interested in determining the impact of television on school children.

In his preliminary investigation, the author discovered that no attempt had been made to determine the impact of television on the school children of an entire city. There were studies, however, that indicated that length of ownership of television sets made a difference in viewing habits. After discussion of the length of set ownership with students in regard to viewing habits, he concluded that after six months of ownership children began to set up definite patterns of viewing. His method of procedure was determined largely by this information.

As the diary system, used by The Columbia Broadcasting System and the National Broadcasting Company, had proved satisfactory in recording the listening habits of radio audiences, he decided to use this instrument for measuring the habits of television viewers.

The diary or ballot, as explained by John Churchill¹⁶ of the CBS is a tool that is somewhat complex in detail, but simple to use. It is a single sheet for the recording of all listening for one 24-hour day. The diary is placed beside the radio set and is filled in as listening takes place. The person listens, records his name, the name of the station, and the program being heard. Seven separate sheets cover a single week of listening. In addition to day and date, provision is made on the front page of the diary for gathering data on the listener and family for classifying purposes.

According to Churchill, there are five basic criteria to be considered relative to audience listening. The study must measure the audience in the home at the time of listening, without reliance on memory. It must show the composition of the listeners' group in the home for each program; it must follow the same person, hour after hour, for an entire week; it must give a true cross-section of all homes in the area which have radios; it must avoid all bias or influence by an interviewer or on the part of the listener. In short, it must obtain a true uncolored picture of actual listening.¹⁷

In 1937 Wayne University's Radio Research was directed by Garnet R. Garrison, who had developed what was termed "The Listeners' Table." A kind of diary was used in connection with "The Listeners' Table."

In April, 1950, radio station KOA, in Denver, an NBC affiliate, and the National Broadcasting Company, sponsored a survey of Colorado and Wyoming. The instrument used was the listener diary.

Battin compiled his diary by combining certain features of the three mentioned above. He used the front page of the diary from the Wayne University listener's diary because of the clarity of instruction on how to keep the diary; the design for the week-day pages from the CBS diary because of the compactness of the pages; the diary from KOA in Denver for the idea of recording the number of other persons televiewing along with the person who was keeping the diary.

The diary was set up from 3 to 11 P.M. on week days because the children did not get out of school until 3. Saturday and Sunday programs were set up at 10 A.M. and 1 P.M. respectively. In the instructions, parents and other viewers were asked to use the back of the diary sheet for any viewing done before or after the hours stipulated.

In order to secure additional information relative to the impact of television, the author used a questionnaire. The purpose of the questionnaire was to check on the information in the diary and on the comments in the interview which was subsequently held.

The next problem was to determine the number of diaries and questionnaires needed. The superintendent of schools approved the idea of the survey and presented it to a board meeting of all school principals who also analyzed it carefully, made some suggestions, and then approved. The superintendent then appointed a committee of principals, one from each level of education, including the parochial schools, to meet with the in-

investigator and discuss in detail the contents of the diary and questionnaire.

Eventually it was decided that the diary could be used from the first grade through the twelfth, but that the questionnaire should not be used in grades lower than the fourth. The author conducted a survey of his own and decided that the committee was right in its judgment concerning the use of the questionnaire in the first three grades.

In order to determine how many students had television sets in their homes and the length of ownership of such sets, specially prepared blanks were given to each teacher on which were recorded the names of students having TV sets, grade in school, and the approximate number of months they had had television, as well as space for recording the approximate number of hours the student had spent viewing television the previous week. In order to get the approximate number of hours spent viewing and length of set ownership from pupils in grades one through six, a letter was sent to the parents on which a special section was provided for recording this information. It was then possible to determine the total number of pupils having television sets at home as well as the number having television sets for six months or longer.

The total enrollment in all public and parochial schools in Ann Arbor was 5,703 children in grades one through twelve. Of the total enrollment 1,887, or 33-1/3%, had television sets in their homes. Of this number, 1,113, or 59%, had had them for six months or longer with the average length of ownership being sixteen months.

Each child who had a television receiver for six months or longer was given a 7-day diary to keep. Diaries were given to 1,113 children; of this number 852, or 78.6%, were returned carefully filled out.

The questionnaire, after having been changed slightly by the committee of principals, was presented to the Study Director, Survey Research Center, University of Michigan, who made suggestions as to the wording of a few questions and suggested a pre-test. Fifty pupils were selected for the pre-test. They were in small groups of eight to ten from the fourth grade through the twelfth. Each question was read aloud and carefully explained by the investigator in order to clarify it. The children knew that this was not a test and that their answers would not be counted against them. After the completion of the questions, the children agreed that they easily understood.

The questionnaire was again presented to the Study Director and was approved for the entire city. When the questionnaire was used in final form, students were assured that no one would see the answers except the investigator and that they might write as freely as they chose.

Interviews were set up with the help of the principals. The schedule involved a certain day at a certain time and in a certain room where there were no distracting elements or interruptions. A total of 597 students were interviewed in small groups of ten, twelve, or fourteen. Those who were absent had to be reached later in order to get a hundred percent representation.

A tally of the approximated viewing hours with the actual viewing hours that were indicated in the students' diaries showed that they were fairly accurate in their approximations. The pupils did not know when they were asked to approximate viewing hours that they would later be asked to keep diaries.

The investigator comments favorably on the cooperation, interest, and attentiveness displayed by the children during the period of interviewing. All pupils from the fourth grade through the twelfth who had filled out and returned diaries were interviewed.

The conclusions to this study indicate that contrary to the beliefs of many people, children who have had television for six months or more do not spend countless hours in a static position before TV. They form definite time patterns of televiewing, as well as definite habits of program selection. They express their likes and dislikes strongly at all levels; older children begin with the news programs after dinner; the program preferences seem well-balanced throughout.

Children like exciting programs, whether they are informational or for entertainment solely; at least half of the group indicated that they had been helped in their school work by television programs and many presented rather convincing evidence of the ways in which they had been helped. About 75% of those questioned had learned how to do several new things from watching TV programs. While reading habits were interfered with at first, they were rapidly assuming importance, especially as the children were motivated to read about something they saw on TV. Apparently for this group televiewing did not interfere with formal or informal education.

From this brief outline of the Battin thesis, it should be possible to see some of the problems that arise in setting up a questionnaire study. Obviously, the use of diary and interview techniques increased the value of the study.

As was stated before, all areas have utilized the questionnaire, interview, and job analysis procedure. In the area of fundamentals, for example, Ainsworth,¹⁸ using a questionnaire with 162 college students in a beginning public-speaking course, tried to discover some aspects of personality and experience related to stage fright in the public-speaking situation.

Purcell,¹⁹ in the field of public address, used the questionnaire method to ascertain the speech needs of business.

In the area of oral interpretation, Hunsinger²⁰ made a questionnaire study using nearly a thousand ministers to determine methods of preparing for oral reading of the King James Version of the Bible.

Schoell,²¹ in an attempt to trace the drama activity in the community theatre in a period of forty years, sent questionnaires to eight community theatres requesting information as to the selection of plays, the function of the theatre in the community, competition, attendance figures, and a break-down on the percentage of plays presented.

In the area of speech and hearing, Molyneaux²² tried to determine

whether or not there were differentiating factors discernible in the early development, home environment, and activities of two groups of kindergarten-age children, comparable in chronological age, school placement, and general medical history, and matched as closely as possible within the scope of the study in regard to mental test score, but differing significantly in regard to the level of articulatory proficiency and linguistic ability which they had attained. She used the questionnaire method and personal interviews with the mothers of the children selected for inclusion in her research project.

In the area of speech education, Finlan,²³ in what might be classified as a job-analysis investigation, inquired into the relationships between the formal training received by college teachers of speech and the speech areas in which they were actually teaching.

EVALUATION OF RESEARCH USING THE SURVEY

The evaluation of any completed survey should involve the consideration of four major aspects of the research study: namely, (1) the evaluation of the purpose of the survey; (2) the evaluation of the appropriateness of the survey to the fulfillment of the specified purpose; (3) the evaluation of the processes of securing the data; and (4) the evaluation of the final inferences drawn from the data.

A chief purpose of the survey is concerned with the gathering of information relating to current conditions, practices, viewpoints, etc. Information reaped from such activities may prove of great practical value to an administrator who desires to base necessary decisions on objective data. In this way the survey has proven to be of great value. However, all too frequently, the survey method has been devoted to the securing of data bearing upon matters that have little or no practical or scholarly value. In part this failing may be due to the research student's not making a careful survey of the current significant problems existing in the professional area under scrutiny. It is a temptation for the research student to select a research topic which appears to offer ready avenues for securing data. Such selection leads to duplication of research efforts centering upon insignificant problems and to the virtual ignoring of vital problems needing solutions. It is the responsibility of the research student and his sponsors, if he is carrying out a research project for a graduate degree, to make certain that any proposed survey is devoted to a purpose having professional value.

The specified purpose for a survey may be one holding timely significance for professional workers, but the survey method may be inappropriate for securing the data essential to realize the purpose. The canvassing of the opinions of speech pathologists in this country about etiological theories of stuttering would not be a suitable means for collecting data relevant to the historical development of etiological theories of stuttering.

The historical development would necessitate the examination of the extant documented views of professional workers throughout the centuries which witnessed the presentation of these views. If one wished to explore the lingual adjustments of the cleft palate individual subsequent to prosthetic treatment, one would be ill-advised to seek the opinions of prosthetists and speech clinicians in an attempt to ascertain physiological fact from amassed informal observations of physiological fact, albeit the observations are those of experts. The ascertaining of physiological fact would require the measurement of any alterations in lingual positioning subsequent to prosthetic treatment by scientifically verifiable means such as roentgenocephalography.

In evaluating any survey the processes of securing the data must be considered. If a test of any sort has been utilized in obtaining data, does the test have validity? With what fidelity does the test assess what it is designed to assess? To what extent are the responses on the test influenced by factors other than the factors being measured? If questionnaires are used in a survey, the questions need to be evaluated in terms of their validity. Questions must be so designed that the possibilities of ambiguity are minimal both in the question put and the response the question elicits.

Rarely in a survey is it possible for the researcher to reach all the individuals in a selected population. He is reduced to dealing with a selected segment of the population, a "sample." The correctness of the data secured from the sample population and the soundness of all the inferences drawn from those data depend directly on the representativeness of that sample of the selected population. Differences may exist amongst "samples" of a population. The scope of these differences determines the "reliability" of any data, i.e., the extent to which the data derived from one sample is congruent with the data to be derived from all the remaining samples of a population. In a frequency study of recommended teaching techniques in a survey of textbooks, the usefulness of the results would be a function of the comprehensive nature of the survey.

In survey studies involving the responses of a sample population the responses must be evaluated in terms of the comprehensiveness of the questions posed. If too few questions are put to a respondent concerning an area, the answers he makes may be complete, but the paucity of answers may give a distorted picture to the researcher. For example, a questionnaire containing questions about the progress of lisps subsequent to therapy might secure misleading data if the questions posed simply inquired as to the proportions of lisps who improved and did not improve. The respondent is forced to answer within the framework of a false dichotomy. There are many degrees of improvement. The replies of the respondent would be more objective and meaningful if he were requested to react to a series of questions which probed the various qualitative and quantitative aspects of improvement.

The process of evaluating the method of securing the data should always

include a meticulous scrutiny of the administration of tests, the presentation of questionnaires, and the handling of interviews. If a test is to be given to groups scattered over a wide geographical area, there must be assurance that the administration of the test always conforms to a set pattern. If a wide segment of the population is to be asked to react to films showing varying methods for the laryngectomized individual to use in speaking, the explanation before the showing of the films and the verbal introduction of the questionnaire following the films must be the same with each group. The details of setting time limits, size of groups, etc., should be maintained as constants in seeking data from various groups.

The survey will provide data relating to the current status within an identifiable perimeter, but the data will prove of little utility unless the research student makes inferences from the data. These inferences may be used in countless ways depending upon the nature of the study. They might be used in the practical decisions reached by an administrator. It is this bridging from fact to inference that gives the survey method significance and value, and it is in this process that the research student must avoid all of the fallacies that may occur in the process of induction. It is possible for the research student to design and execute a faultless survey, and then reach conclusions which may have harmful consequences through falacious inferences from the facts. The evaluation of a survey study must include the assessment of the final inferences drawn from the data.

SUMMARY

The purpose of this chapter was to present the type of research that uses questionnaires, interviews, or job analyses as tools. Such research is characterized by fact-finding illumined by interpretation. The research methods described are important in themselves and for their use in combination with other methods. A survey, for example, using a questionnaire might lay an excellent foundation for an experimental study. An interview technique might well be used in a historical study to obtain information not available except through interviewing. A job analysis might be valuable in setting up studies in comparative methodologies. In other words, the research methods treated in this chapter often prepare the way for other studies utilizing varied research designs. The value of questionnaires, interviews, and job analyses is in direct proportion to the explicit attention the researcher pays to interpretation and evaluation of facts.

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NOTES

1. Cf. C. V. Good, A. S. Barr, and D. E. Scates, *Methodology of Educational Research*. New York: Appleton-Century-Crofts, Inc., 1938, p. 294.
2. Frederick L. Whitney, *The Elements of Research*, New York: Prentice Hall, Inc., 1950, p. 160.
3. Leonard V. Koos, *The Questionnaire in Education*. New York: The Macmillan Co., 1928, p. 116.
4. *Ibid.*, p. 99.
5. *Ibid.*, p. 113.
6. "The Questionnaire," *Research Bulletin of the National Education Association*, Vol. VIII, (January, 1930), p. 19.
7. *Loc. Cit.*
8. Koos, *op. cit.*, p. 122.
9. Harold H. Abelson, *The Art of Educational Research*. Yonkers-on-Hudson, New York: World Book Co., 1933, p. 72.
10. Cf. Koos, *op. cit.*, pp. 72-92.
11. Cf. Annette Garrett, *Interviewing. Its Principles and Methods*. New York: Family Service Association of America, 1942, pp. 55-58.
12. Cf. Leonard V. Koos, *op. cit.*, pp. 16-17.
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CHAPTER 12

Case Study and Case History

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INTRODUCTION

Interlocking systems. Speech processes involve whole systems and subsystems of behaviors and adjustments within the speaker, in interaction with systems within other persons, in their large and small groups. The body-voice motions which can be seen and heard come out of the depths of personality and social interactions as persons make their day-to-day adjustments to their environments. Speech behaviors are the result of a long accumulation, an inheritance of diversities and regularities in language, in attitudes, in orientations.

A design to encompass speech complexities as a whole. Over-simplified explanations of speech phenomena will not be modified as long as our textbook writers and teachers hold over-simplified assumptions. The vagueness and intangibility which hamper our efforts will continue as long as the assumptions remain uncorrected and our explanations uncriticized.

The tangible and more accessible aspects of speech make us prone to look only at these parts of the process, to lose sight of the whole and the settings, the invisible, the silent, the non-verbal, which control what happens. There is danger that in our absorption with the more tangible that we will lose sight of the heart and the whole body and situation in which speech phenomena appear. Helpful in dealing with these complexities, by itself and/or along with other methods is the Case Method and Case History. The purpose here is to give an exposition, with suggestions for the general design for such studies.

DEFINITIONS

The case study. Horace B. English, a psychologist, describes a "case study and a case history as a collection of all available evidence—social, psychological, biographical, environmental, vocational, that promises to explain a single individual or social unit".¹ For a sociologist such as Pauline V. Young, "case study is a method for exploring and analyzing the life

of a social group—be that unit a person, a family, institution, culture group, or an entire community”.² Also relevant for speech research is the statement by another sociologist, Clifford R. Shaw, “The case method emphasizes the total situation or combination of factors, the description of the process or the sequence of events in which behavior occurs, the study of behavior in its total setting and the analysis and comparison of cases leading to formulation of hypotheses”.³

The case history. A *case study* may be confined to an occasion or a specific situation. It is limited as to time. It is a cross-section of a period in the life of the individual or group. A *case history* will trace the origin and the development of the individual or the individual group in a sequence. It is, in a sense, a type of biography or life history. Sometimes it is autobiography included within other data. It may be continuous, covering a day to day, year to year development, or it may represent cross sections taken at different periods. Usually the case history represents direct observations at intervals, the gaps being filled in by appeal to memory or documents. When objective data may be obtained they are used; when they are not to be obtained, the case history utilizes simple description. The case history is generally a combination of the objective and the subjective without discrimination.

“Biography, in all of its diverse forms attempts to describe human lives. . . . From the earliest times, the best of the writers of biography have striven to describe not only the overt actions and recorded facts of their subjects’ lives, but also their personalities. . . . There is a connection between the man and his deeds. An understanding of his personality helps explain his accomplishments, while an understanding of his accomplishments throws light upon his personality.”⁴

The dynamic factors of growth, change, progress and deterioration receive emphasis in the case history. The speech case history should trace the whole course of speech and language development, along with the influences upon this development in the individual. It should indicate the influences which contributed to the great oration, or acting performance, or the writing of a play, the production of a TV or film program, or the course of an instance of stuttering, stagefright, or a communication breakdown in an industry, or family, or other situation under study.

TYPES OF PROBLEMS OR QUESTIONS BEST ANSWERED BY THE CASE METHOD

Cases open up problems of causal relationships. The fact that problems in speech rarely yield in any uniform manner to specific methods of teaching, coaching, and therapy, whatever they may be, indicates that causal relationships have not been sufficiently explained. Most any inexplicable sort of speech behavior in a particular person or group may possibly be explained through a case study. Case studies may locate and

bring out these relationships more definitely. Such investigations may result in merely a description of what happens. But such studies may also become a basis for principles to be formulated and principles to be verified.

Where the student is not able to formulate appropriate questions for research, a case study focused upon unusual speech behavior will probably result in specific questions which might occupy him and others for a long time. To find the right questions for research in speech is as important as to find the issues in a debate. These questions sometimes best come out of a case study with its broad and comprehensive data. The case study often is preliminary to studies which utilize the other methods of research described in this textbook.

Case studies may provide bases for diagnosis. Questions to unearth information to permit diagnosis and evaluation of different speech methods and approaches are frequently undertaken as case studies. More of them are needed. What were the effects of speech therapy upon a particular case of hysterical aphonia?⁵ What were the effects and what were the methods of persuasion used by John Marshall in his speech on Johnathan Robbins in Congress on March 7, 1800?⁶ What were the effects of the Vigilance Committee upon crime in San Francisco?⁷ What were the effects of the interpersonal communication of John Foster Dulles and Chow En-lai in the South East Asia Conference? What were the effects of the Mike Wallace interviews over TV in dealing with controversial questions? Ascertain and evaluate the effectiveness of the chief channels of communication of the faculty of a college,⁸ or a high school. Or, the negroes of Baton Rouge.⁹ In what respects do the words, "progressive education" interfere with the relationships of a school system to its community?¹⁰ Ascertain, if the parties concerned are willing to cooperate, the communication factors in the breakdown of a marriage, or a strike.¹¹ In a class of general semantics ascertain the effects upon their perceptions of training the students to look for variables, ratios, or other concepts from mathematics when these are generalized as means for looking at "the facts".

STRENGTHS OF CASE STUDIES AND CASE HISTORIES

Case data come close to the life-facts. Aside from being unusually interesting the varieties of data which go into a case study have a peculiar intimacy and closeness to the reality being studied. The letters, interviews, reports, recordings, autobiographies and other personal documents take on more and more meaning as they are put together and checked against each other. For the speech correctionist and audiologist these studies become more interesting and valid as data from speech and language histories, speech and language tests, achievement and personality tests, and data from the relevant medical and psychiatric areas are incorporated. For the student of public speaking, or acting, and discussion these data help the bare-bones of a printed speech or dialogue come to life.

Case studies help in crystallizing the intangibles of speech behaviors into definite and accurate descriptions. What starts out as a vague assumption and high order abstraction gradually evolves into a more concrete description and this may evolve into an hypothesis which may be stated with considerable rigor and exactness for testing.

The case study breaks through the tendency to study an aspect of speech as a closed system within itself. That is, for example, to study parts of language and speech codes for relationships within and among these parts without reference to what is and has been going on inside communicators and the communicatees. To do this without reference to other basic variables which operate simultaneously in communication processes results in sterility and inconclusiveness. Dr. John Auston¹² and Dr. Keith Case¹³ in their analyses of speech research have pointed out these difficulties and futilities. Their studies among other matters brought out that thus far speech research has not settled finally upon what these variables are and their relationships.

Case studies are unusually fruitful in discovering new relationships. There must be some justification in the expenditure of the large amount of time and effort for a case study. Wilson Gee, a social scientist points out, "first, only through exhaustive studies are new relationships discovered and described accurately, and second, every individual case has characteristics which may be regarded as typical or representative of a large number of cases. Thus the case method lends itself best to the early exploratory stages of research, and is greatly useful in establishing by analogy trial hypotheses for empirical testing."¹⁴

The inherent communication capacity, which is most apparent in a person's speech, includes the interlocked abilities to receive and perceive, to organize, to formulate symbols, to transmit and deliver information and attitudes. It also includes the abilities of the speaker to learn about himself and others in dealing with these functionings in their environments. Clues as to the nature of these interlockings and operations and the effect of each upon each other, back and forth, may often best be obtained through case studies. With enough case studies perhaps all of the chief paralleling variables inside speakers and their groups may eventually be detected and further pinned down and clarified by other research methods.

Many frames of reference may be used to yield data. "The case study is potentially the most valuable method known in obtaining a true and comprehensive picture of individuality. It makes possible a synthesis of many types of data and may include the effects of many illusive and intangible factors in drawing educational inferences. It seeks to reveal processes and interrelationships among factors which condition these processes."¹⁵ Probably no form of research is more productive of tentative conclusions from which hypotheses and questions may be formulated. Many of these lend themselves to further and large scale testing. The productiveness comes from the many approaches and frames of reference

from which the researcher may analyze his case. The same case in other words may be investigated from many standpoints, and bring forth positive results. Often however, the results should not be expected to be conclusive. Yet the results may be considered satisfactory, even though obtained from only one approach, or frame of reference.

A speaker may be studied from the standpoint of Aristotle's rhetoric, a playwright or actor from the standpoint of a particular approach from dramatic criticism. But speakers, actors, speech and hearing deficient persons are also studied with reference to a principle or principles from biology, sociology, psychology, psychiatry out of which the so-called Behavioral Sciences are being organized.

In these respects case studies are beginning to appear which are structured from a concept or concepts taken from group dynamics, such as "group cohesiveness",¹⁶ anthropological linguistics, such as "orders of abstracting",¹⁷ systems theory, such as "isomorphism" and cybernetics, such as "feedback",¹⁸ (which includes information theory), communication theory, such as "permissiveness",¹⁹ general semantics, such as "self-reflexiveness,"²⁰ and sociometry and sociodrama, such as the "choice factor in interpersonal relations."²¹

LIMITATIONS AND WARNINGS IN RESPECT TO CASE STUDIES

Unrepresentativeness of the case as a sample. As with other methods of research there are weaknesses and hazards, and some which are special to the case study. The weaknesses are inherent both in the very things which give the method strength, and in the nature of speech complexities.

The data selected to build the case, and the whole case itself may be so unique that the only use that can be made of it is to let it stand as a report on this *one* speaker. Although no two subjects for case study could ever be identical, if any interpretation is to be made the value of the case lies in the fact that the case has similarities to others of its kind, that it may be looked upon as typical. Yet, it should be pointed out that a freak case may give a clue to a discovery which applies to others.

Unrepresentativeness of the materials selected for the case. For speech studies only a minority of people ever undertake or write letters or make recordings, which they make available. Still fewer have materials which are directly relevant for the researcher's purpose. By and large speakers, especially the speech deficient, do not say much about themselves, the manner in which they talk, their mental processes and the personality factors within them. Reports of other persons about a speaker are usually fragmentary and according to general impressions. They have not the trained hearing and perceptiveness which is necessary for much coverage of details. This does not apply to persons who preserve their notes and texts, and for those who make recordings of their public speaking and acting efforts.

An enterprising and tactful investigator may counteract this selectivity of materials. The promise of anonymity, the use of incentives and awards may induce subjects to keep records, and to write diaries and autobiographies, and provide other documents.

If no interpretations are made in respect to others, and if interest in the researcher is to find out something of how *one* person (speaker) only functions, only one valid document such as biography, or autobiography, is demanded, according to the psychologist, Dr. Gordon Allport.²²

Non-objectivity. Bias is inherent in the materials which a researcher may select concerning his subject, as well as in the researcher himself. Records are open to unconscious errors of perception, memory, judgment. The subject may say or write what the investigator wants; he may overstate or understate. The subject may be enamoured with his own words and style, instead of the veracity of what he is saying; he may talk himself into believing things which didn't happen; deception and self-deception may occur; letters, reports, recordings and other documents may represent a mood which would be different at another time; hidden motives are difficult to recognize; there is a tendency toward over-simplification as the subject attempts to be complete and to be consistent in making the parts of his explanations fit together; in general, there is a continuous hazard of the delicate ego taking over with its tendency to distort and to delude; and toward an over-proneness to make inferences which subtly and indirectly have their ways of winning out.

These unreliabilities in the case materials may in themselves reveal important data concerning the subject. Unreliable persons often unconsciously expose themselves as the investigator utilizes more and more sources of information and as one datum is checked against another datum. Regularities and structure may appear in the inconsistencies and unreliabilities. When these appear the investigator might feel warranted in generalizing.

There are many ways in which subjectivity and unreliability may be diminished if not offset. This depends upon the comprehensiveness and variety of the research methods employed in developing the case. Many of the methods described in this book should be employed in the gathering of data to increase validity. Questionnaires, job and activity analyses (see Chapter 11), mental, achievement, language, speech, hearing tests, and statistical procedures for correlation and reliability, critical methods should be used (see Chapter 13) until in the judgment of the investigator he can arrive at defensible conclusions.

In detecting self-deception the speech investigator will give special attention to the language structure and the attitudes which go along with them. The presence of finalities, superlative and absolute statements, with the inner "allness" therein, as well as excessive repetition may indicate that the subject is fooling himself. "I am always this way", "only", "at all costs", "I am a failure", "she is my enemy", accompanied by impulsive and rigid attitude-sets provide examples.

The speech scientist usually is trained to use certain tools which are used very ineptly by researchers in other areas. He is expected to use these to obtain data which other scientists might overlook, and which will help him warn himself when his data are insufficient, and of the biases in his subject and himself. He probably has a more acute sense of hearing to derive data from voice inflections, intensities and patterns. Potentially at least, he has more sensitivity to body-voice motions, postures, and attitude-sets; he may have an unusual rigor in his use of evidence; he may be better sensitive to semantic reactions, and able to deal with the different orders of abstracting in both his subject and himself; he should be able to abstract more in his area than anyone else.

The objections raised to the use of case studies have been sufficient to scare a good many speech students and directors of research from undertaking them. This has especially happened in other areas such as psychology, where such studies are recovering from a depression in their use. In social work, cultural anthropology, and psychiatry there is little alternative to their use. The same may be said in regard to speech and hearing therapy. No serious attack has ever been made upon results from the many published studies of orators and actors in the speech literature. What Gordon Allport says concerning case studies in the social sciences applies just as appropriately to speech; namely, "if the language of personal documents can be shown to enhance understanding, power of prediction, and power of control, above the level which man can achieve through his own unguided common sense, then these documents must be admitted as a valid scientific method."²³

PERSONAL REQUIREMENTS OF THE RESEARCHER WHO WOULD USE THE CASE METHOD

The case researcher should like people. The previous discussion should indicate what the student is "getting into" when he undertakes case studies and case histories. As with the effective speech teacher, he should first have an unbounded curiosity and interest in personality, human interactions, human relations and leadership. He should be interested in personality, in how persons and groups breakdown in their productivity, in their interactions with each other, with the interactions of group with group. In doing this he will of course have an unusual interest in audiences, small and large. In these respects he is similar to the cultural anthropologist, the guidance and personnel worker in industry, the social worker, and teachers of children.

Many of the leading speech scientists today came into their careers because they wanted to know more about what made a certain orator or leader "tick". Others came into their careers because of some personal deficiency in speech or personality, or in some relative. Several most distinguished researchers in speech had their motivations in a severe speech deficiency of their own.

If their case studies are to be the most productive the student of public speaking and the student of speech pathology will exhibit almost an equal interest in the groups in which their subjects function as in the subjects themselves. The breakdowns in groups and the breakdowns in person operate together. An exclusion of interest in either will tend to interfere with the best results.

The case researcher should be able to get along with people. While he may like people in general, and have a continuous interest in them this may not extend to the specific very unique persons with whom he must work in obtaining the various data for his case studies. The subject of his case study may himself be a very "difficult person", he may be hard to contact, his time may be very limited; he may be an "odd ball" who must be approached with the utmost of tact; he may not want to talk about his speech deficiency, he may not wish to reveal the "secrets of his effectiveness"; he may not let you or anyone else see his letters or other personal documents. Agencies are frequently reluctant to reveal data they have concerning their subjects. Sometimes such documents are impounded for long periods of times. Families often treasure materials which are useful to the researcher even though useless otherwise. Case researches run into countless barriers of culture, language and mores. In all of these situations and many more the investigator must have a vast patience, tact, ingenuity, and insight.

Other backgrounds and skills. Interest and backgrounds in linguistics, phonetics, speech pathology, audiology, semantics, and often other speech areas are assumed for the speech case investigator. These backgrounds go along with his interest and backgrounds in personality, group dynamics, and human relations.

For this research the student does not need advanced mathematics. He should be aware of mathematical correlations and reliabilities and know where to go to be sure he is using the best formula and to permit his work to be checked.

If his research is with speech therapy cases, he should have a background in tests and measurements and be able to administer mental, achievement, personality and projective, hearing, as well as the various tests of speech and language. If he is working with a case of public speaking or acting he should have both rhetoric and oral interpretation theory under his command.

For whatsoever the case investigation may be he should be able to write up the diverse materials he will collect with clarity and rigor of statement and organization. For all of this he should like "to haunt" a library, and have a detective's sense for clues as he looks for and into indexes, encyclopedias, special bibliographies as he unearths his documents and assembles his data. He should have a critical sense; he should be particularly critical of statements and able to separate materials which are descriptive, from those which are inferential and judgmental. Further explanation of these matters is given in other chapters of this book.

DIRECTIONS FOR BUILDING CASE STUDIES AND CASE HISTORIES

Especially structured case studies. Every case study has a special design according to the specific purpose of the investigator. Parts of the study are lengthened or shortened depending upon the point of emphasis in the life of the case which is to be studied. If the purpose is to study the style of stage design of Robert Edmund Jones the case will be structured from treatises on dramatic criticism, to bring in the right information. If the purpose is to make an analysis of the so-called logical, pathetic and ethical proofs of the speaking of Adlai Stevenson, his life will be expended around these points taken from Aristotle's *Rhetoric*.

The structure for case studies in Speech Correction is designed to bring out information necessary for the therapy of the patient. This structure does not vary widely among the authorities in Speech Pathology. For Charles Van Riper such studies are based on some 200 questions covering the categories of the parents and relatives, birth history, developmental history, present physical condition of the child, muscular coordinations, mental and educational development, handedness, play, language development, home conditions, childhood problems. Van Riper in addition, has developed especially structured case histories for articulation cases, voice cases, delayed-speech, and stuttering cases.²⁴ It should be noted, however, that for research purposes, the data brought in for therapy purposes may need to be expanded through added categories, while some of the data from the categories such as those mentioned may become irrelevant.

Stages in developing a case study. The stages through which it is necessary for a case study to be carried are not always the same in the number and the manner in which each is developed. Some modifications of the plans and suggestions which follow are permissible depending upon the purpose of the study, the nature of the particular case, and the difficulties in the number and sorts of materials which need to be obtained. These matters will determine the dimensions and procedures.

Generally the sequence of stages which follow is appropriate for the study of individuals in speech classes, for individual classes in fundamentals, public speaking and oral interpretation, and therapy case research, and for speech studies in interpersonal communication. The following four stages are suggested by Barr, Davis, and Johnson.²⁵ The researcher:

1. *Establishes* the fact that the phenomenon under investigation, frequently an individual, is inadequate* in some vital respect.
 - a. Collects what appear to be relevant data, observes behavior, administers tests, examines products (of the speaker or speech group).

* Or unusual. The phenomenon should have something distinctive about it. It might be unusually effective.

- b. Evaluates the data collected, compares data with past experience and norms.
 - c. Reaches a decision that not all is well; that the conditions leading to or accompany the inadequacy must be sought and remediation applied.
2. *Selects* from among the circumstances leading to or accompanying the observed inadequate a supposed cause or causes.
 - a. Reviews his own past experience, consults with others, and re-examines the scientific literature relative to similar situations.
 - b. Looks for symptoms that might indicate the presence of some disabling deficiency.
 - c. Formulates hypotheses about the probable causes of the deficiency observed.
 - d. Checks for the presence or absence of the supposed cause, through systematic investigation when such appear necessary.
 3. *Institutes* a remedial, corrective, or improvement program.
 - a. Reexamines his own past experience and scientific investigations for ideas relating to a course of action.
 - b. Chooses from several alternate courses of action those that appear to be appropriate to the immediate situation.
 - c. Rechecks to determine adequacy of behavior, performance, or out-put.

Detailed procedures for a formal case thesis or dissertation. The suggestions which follow should be supplemented by suggestions from the other research methods described in this book which often may be relevant in working up your case. The procedures indicated will be illustrated from a dissertation of a case study in radio by Dr. Claude Hempen.²⁶

1. *Prepare a preliminary plan for your study, usually of two to four pages.* This plan you will use as a general guide as the work progresses. It will necessarily become more and more detailed and more and more concise and rigorous in statement as the study proceeds. You may be required to present such a plan to the director of your study or to a faculty committee for a preliminary approval before undertaking continuing. The plan should include clear statements for each of the following:
 - a. *The aspect of speech communication in which you are especially interested in investigating.* Dr. Hempen stated that in his work "as an announcer in a radio station that he had become especially interested in the contribution of radio to public service". In his study "public service" became the frame of reference for his whole investigation. Your frame of reference may be a principle derived from your reading in speech pathology, rhetoric, dramatic criticism, group dynamics, or from a lecture by a professor, and other sources of speech theory which have already been mentioned.

- b. *The subject of your study.* "A Case Study of the Public Service Contribution of a Radio Station" was Dr. Hempen's subject at this point. The subject that finally appeared in his dissertation was more definite.
- c. *The case to be studied.* Dr. Hempen was primarily interested in the concept of "the public service contribution of radio". He then selected a large station with a long history which was convenient and accessible to investigation and wherein he would have the cooperation of the manager in making personnel and records available for data gathering purposes.
- d. *A statement which combines the purpose of the study with the research method (in one sentence if possible).* Dr. Hempen's at this point: "The purpose is to analyze the programming of KLZ for a specified time from the standpoint of Public Service rendered by means of examination of stated policies from the administrators of the station, from letters in respect to programs, and from an examination of the daily radio logs of the station". This statement should be made as exact as the investigator is able to make it at the time. In his completed study this statement of Dr. Hempen's was slightly more detailed. *The use of the combined statement is important in keeping the investigator from going off on tangents.*
- e. *Statement of hypotheses to be tested.* Hempen stated two hypotheses: One was "that station KLZ was programming more public service than the average station of its power". This hypothesis was borne out in the data and conclusions as he completed the study.
- f. *A statement concerning the chief sources to which you will go to carry on your investigation.* Hempen stated these as he knew of them at the time. He found more sources as he got into his study in the libraries and into the station's files. Be sure that adequate sources of data will be available. Indicate them in your plan.

With this statement of his preliminary plan for his case research Hempen went to his thesis director for approval and suggestions. In Hempen's situation he then revised his plan before appearing with copies before his graduate committee. Here his plan was criticized, further suggestions given, and he was given permission to continue with the larger study. He proceeded as follows:

- 2. *Gather materials concerning studies pertinent to this study and from the related literature.* At this stage Hempen put his study in the whole setting of government and the broadcasting industry. He documented and summarized the literature on the effects of broadcasting in the culture, the responsibilities of broadcasters to keep their audiences informed, and the laws, rules and interpretations of the Federal Radio Commission in respect to public service programming.

3. *Gather materials relating the case itself.* Hunt for every sort of document, report, that might have even a remote bearing upon the purpose of your study, primary and secondary, which have been mentioned in this and other chapters of this book. Interviews, newspaper accounts, photographs, letters, every sort of information you can unearth may suggest clues to more sources which you can unearth. You will find some of the talents of a detective valuable as you follow through the clues.

Dr. Hempen was fortunate in that most of the materials he needed were in the library and the files of KLZ. He had available thousands of letters from listeners, the day-by-day radio logs of programs presented; he interviewed the general manager, the program director, and other personnel, he got into the files of correspondence with the Federal Radio Commission, and transcriptions of the programs broadcast.

4. *Excerpt and record the materials.* You will probably build a small temporary library of the chief books and files as your investigation proceeds. You will search exhaustively and in many directions to find the materials you will need in order to have information as complete as possible. You will find it necessary to select at many points as you build your index of cards. Be sure to document each excerpt.
5. *Classify and organize your materials under the proper main and sub-headings.* Directions for doing this are ample in other chapters of this volume such as Chapter 15 and in the thesis manuals.
6. *Write-up your case study.* You will find models which may be helpful in published case studies and in interlibrary loans, or photostats. Several rewritings will often be necessary as your statements become more clear and exact. Great rigor is required. The most difficult point will be in writing your conclusions in order not to go beyond what your data bears out and in bringing out the utmost which is valid. Do not use an extra word more than necessary, but for scientific work enough should be written to prevent misunderstandings by an informed reader in your area.

Using statistical methods. The case study which Dr. Hempen constructed utilized several statistical methods in the analysis. Tabulations of the actual broadcast time and percentage of total time in hours to "public service" with graphs were presented. These were broken down in terms of the three principle time brackets; namely 8:00 A.M. to 6:00 P.M.; 6:00 P.M. to 11:00 P.M., and "Other times."

Some statistical procedures may be required to make certain that the case selected for study is sufficiently typical. This is often important if the comprehensive study of a single individual is to be justified. For instance, such a study of a person with stagefright would require that the person selected have an I.Q. which is an average of that of many cases of stagefright. The investigator will find his study much better "controlled" if he selects a stutterer with the average I.Q. of other stutterers. He will

therefore obtain the I.Q.'s of as many stutterers within a specific age, and educational brackets, and a specified sex. He will then select for his study a person as near as possible to the average of the I.Q. within these limits.

The interdependence of statistical and case study methods and the use of more advanced statistical methods and the use of projective tests is discussed by Pauline V. Young.²⁷

EXAMPLES OF CASE STUDIES

Example of a case history from speech therapy. In this study the purpose was to ascertain the results of an extended period of speech and educational therapy for a case of receptive and expressive aphasia. Dr. Joseph Fitzpatrick utilized data from the speech clinic files in writing up the case history of a five and one-half year old boy. Case histories in speech correction and in social work are obtained primarily for the purpose of therapy; often they need to be supplemented for the purposes of research. This study²⁸ may be especially interesting in respect to the attempts of the staff members and clinicians to obtain relevant data:

Case history from speech therapy. The patient was a five and one-half year old pre-school child referred by his Pediatrician of a Clinic for children. At that time the child was under treatment for convulsions described as grand and petit mal seizures. Electro encephlogram readings indicated an organic basis for these seizures and the child was under sedation. An extensive medical history was obtained from the pediatrician and the parents appeared most cooperative, revealing pertinent information during interviewing procedures.

Both parents appeared to be responsible, well educated individuals. The mother demonstrated a wholesome constructive attitude toward the problem and family relationships seemed quite satisfactory. The patient was the youngest of three children and the only one of the three to be born by caesarean section. He weighed eight and one-half pounds and was considered a full term baby. Difficulty in breathing at birth, requiring resuscitation, infection accompanied by high fever at nine months, and at least three severe convulsions during the preceding year were the more notable physical reports.

Referral for psychological evaluation had come about as a result of the behavior problem the boy was presenting in pre-school. He was described as paying no attention to direction given him at school, doing as he pleased even to the extent of crawling around on the floor while other children were cooperating in activities, and failure to respond verbally particularly to adults.

Psychological evaluation tended to rule out the possibility of a hearing deficit because of the boy's responses to certain auditory stimuli during testing. Later audiometric evaluation confirmed this opinion. The boy re-

sisted items on the Weschler Intelligence Score for Children, completed all items in the performance range of the Merrill-Palmer with the omission of verbal items. The boy placed in the above average range in performance ability even though he was lethargic and under sedation at the time of testing. Doll play was random with some display of possible fears, some hostility toward the father figure, considerable interest in cleanliness, some sexual curiosity toward the figures, and pride in his own strength.

During the speech evaluation the boy would lapse into periods of jargon. He participated freely in the phonetic inventory given with picture cards. The greatest ability in the area of speech was demonstrated with the examining speech person. The examiner felt that the boy could make all of the sounds normal for his age, whenever he desired to do so. It was hoped that free speech might be encouraged.

Later observations of the boy during schooling and therapy tended to indicate that his emotional problems might have stemmed from feelings of inadequacy as far as speech was concerned. His behaviors were affording confirming evidence of aphasia, not only expressive but receptive.

Within the family constellation there were evidences of jealousy on the part of the older brother toward the patient. The older sister didn't care to play with him but got along with him provided he didn't "bother her things." Father tended to play rough with the two boys and he was judged by his wife and mother "to be too much of a tease" with the children. Father "always won" in contests played with the children but the mother didn't feel free to correct him on these scores. Grandmother apparently was accepted by the family and was not considered as an intruder. She frequently kept care of the boy and felt she "could soothe his nerves." Father's work frequently occupied his time both days and evenings but he tried to be with them as much as he could. Picnics, ball games, rides, etc., being planned to fill some of the gaps of togetherness.

It was the opinion of staff members of the psychological services, consulting psychiatrist, pediatrician, and speech clinic school staff that this lad could profit from remedial educational procedures, speech therapy and play therapy with the ultimate goal of improving his adjustment and for communication.

The above case history constitutes only a part of the entire case study. Other sections dealt with quarter to quarter reports by therapists and teachers as well as day to day accounts of play therapy. Detailed reports of speech therapy with this child and the combined opinions of staff members as to his progress, as shown by tests and retests of language and adjustment skills, went to make up his case history. As in this case history a case study may stand as a report of the phenomena discovered for the particular individual or situation concerned. For studies for other purposes involving more relationships and comprehensiveness the data may permit formal conclusions, but these can hold only for the one case.

Examples of case studies in speech interactions. Although up to the

present time few attempts have been made to study speech interaction in person to person communication, intergroup communication, and group to group communication, there may well be many studies along these lines in the future. Such speech studies are becoming more and more feasible with the concepts which may be tested in case studies from motivational psychology, group dynamics and general semantics and other approaches which have been referred to in earlier pages of this chapter. Such studies are of especial interest for those who wish to build speech studies in the family, in industry and government.

Models for these studies, some better than others, may be found in the publications of the Society for Applied Anthropology; namely, *Human Organization*, and the *Clearing House Bulletin*.²⁹ While the applied anthropologists do not make their analyses from the basis of speech or communication concepts, they have many published case studies which are relevant to speech; they face similar problems as do investigators in speech, and the procedures they use are suggestive of what a speech investigator could do.

An example of case studies from Applied Anthropology which might be of special interest is by George Straus, "The Set-Up Man: A Case Study of Organizational Change".³⁰ This study deals with what happens when an organizational change is made without a full understanding of the wider communication ramifications. The effect of rate of speaking by the different members of a group upon the rate of speaking of each other is indicated in a study by George A. Talland.³¹ The effects of strategically situated pressure groups from industry and agriculture in respect to a regional conservation program is studied by Walter Firey.³² Research by Peter M. Blue concerning the interpersonal relations (speech is highly pertinent to this) among the officials, supervisors, clients and office personnel of an American government office is analyzed and summarized.³³

EVALUATING CASE RESEARCH

Are the data in the case sufficient? The case study will be weakened to the extent that the materials on which it is based are not representative, are not proved adequate for the purpose employed, where their reliability is not checked by independent sources, and where the validity of the interpretations drawn from any single source is not demonstrated.

Nothing may be discovered, and nothing should be concluded, if the hunt for materials is stopped too soon. If the results indicate conclusions which are contradictory or inconclusive more research is also indicated. Except for an occasional unusually plausible autobiography a case will be rickety in structure if it is built on any one document or set of data, unless the conclusions are clearly qualified to apply to this narrow datum.

The case should incorporate data from as many sources as possible to fill in as many gaps as possible.

Data may be said to be adequate when no new information turns up

with the addition of further sources. At this point the investigation is becoming exhaustive. Are there sufficient data to establish the structure of behavior in the subject? When patterns, and patterns from fragments come together and repeat themselves, when nothing new about the subject can be found, the data gathered may be sufficient. Once the data indicate the same pattern of speech or communication behavior without significant deviation there is no point in more observation. The personal documents will measure up if they exist in sufficient number to create a preponderance of evidence. It is not necessary and it is impossible to expect a case study to say all about the infinite characteristics of the subject.

Does the case incorporate the "right" data? In addition to the requirement that the sources used properly represent the case concerned, the question should be asked whether the documents and data used in the case are relevant to the conceptual structure, or frame of reference on which the study is based? Were the radio programs Dr. Hempen classified as "public service" programs properly classified? Do the classifications meet the tests for induction?

The case study should incorporate the same thorough effort as that of a debater who conscientiously prepares all sides of his question. The data used must be relevant not only to the person or group studied, but to the concept and frame of reference from which the case is being put together. The ascertaining of a structure or group regularity in the behavior of the person or group being studied is in itself an indication of relevancy of the data being analyzed. Among the plethora of materials which should be obtained, there is not space in the write-up for data which do not bear on the purpose of the investigation.

Are the data in the case study valid? In checking to the hypotheses being tested does the case study indicate any tendency on the part of the investigator to go beyond his data either to support or deprecate his hypotheses?

Do the data from the different sources support each other? Does one observer and report tend to say the same about the case as other observer and document? Has the investigator been able to detect oversimplification, bias, deception and self-deception in his materials? Is he able to utilize such manifestations as data in order to obtain a more valid picture of his case?

SUMMARY

In this chapter an explanation for the carrying through of case studies and histories has been given. The sorts of problems and questions which are amenable to case approaches, and some new sources of concepts important to speech which will respond to case investigations have been suggested. The stages and general procedures through which such work is carried have been described and illustrated.

Case studies and case histories have several unique advantages for research in speech. They may be especially valuable in initiating new aspects which may be further investigated by other methods, whether these aspects have to do with speech performance, speech education, speech therapy, and with speech in the interpersonal and intergroup phenomena of human relationships. Case studies enable the student to formulate new questions and problems growing out of complexities in the nature of speech processes which are more or less hidden. The case study and case history encompass sets of relationships as a whole.

However case studies, because their data must stem from many sources and many other methods of research, have the problems and weaknesses of all the sources and methods. Although other methods of research must ordinarily carry on within narrower limits than the case study, case studies may benefit as results from varied sorts of studies are utilized, or as the case studies are supplemented by, or supplement other methods of research. Yet as resourcefulness and maturity on the part of the investigator increases these difficulties are usually overcome. In such efforts the student will find great satisfaction in his career as a speaker, or teacher of speech, but particularly as a discoverer in the vital realms of human relationships and human development. Speech, indeed, offers unique opportunities.

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CHAPTER 13

Measurement in Speech

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INTRODUCTION

An objective research project usually begins as a product of someone's curiosity regarding a possible connection between certain variables. It might be concerned, for example, with the relationship of motor ability to articulation, or some particular method of teaching to speech improvement, or experience in public speaking to social confidence, or some method of presenting material to audience reaction. Before curiosity can be converted into* a workable program of investigation, important steps have to be taken.

PURPOSE OF CHAPTER

One important step, the one with which this chapter is concerned, is the selection of a suitable procedure for measuring each of the variables involved in an investigation. If usable data are to be gathered, the investigator needs a considerable knowledge of the theory of measurement, particularly as this theory applies to the complex phenomena of speech. He needs also to discover, or to develop, instruments, tests, ratings scales, observational procedures, or other measuring devices which will produce usable data.

In this chapter we shall first discuss briefly some considerations basic to the nature of measurement. Second, we shall consider various types of indexes which have been used in the measurement of speech events. We shall cite examples to show how these indexes have been used, and discuss some of the problems involved in their selection and development.

The reader should be aware that this chapter differs from others in this

* Dr. Howard Gilkinson's death in February, 1958, occurred after the original writing of this chapter, but prior to its final revision. Dr. Smith writes, "It is my hope that this final revision remains faithful to the original concept of the chapter, which was largely the work of Howard Gilkinson."

text in that it *is not* concerned with a particular *method of research*, but is rather concerned with a wide variety of measurement devices and procedures which may be useful in any of several methods of research.

THE NATURE OF MEASUREMENT

Measurement, observes Lindquist, “involves the assignment of a class of numerals to a class of objects.”¹

In speech, the classes of objects to which numerals may be assigned include all of the extraordinary range of events associated with the speech situation—the various behaviors of speaker and listener, the attitude, personality traits, and physiological states incident to these behaviors, and aspects of the environment from which acts of speaking proceed, or within which they take place. “Assigning a class of numerals” may be an act as precise as counting the number of syllables a speaker utters in a given period of time, or counting the total number of favorable and unfavorable references to organized labor in a given sample of discourse. It may mean the usually precise acts of assigning events to discreet categories, or to categories ordered along some continuum. Thus, measures are used to assign voices into categories of voice quality, or to rank speeches according to some criterion of quality, or to place the verbally expressed attitude of a listener toward a proposition at some point along a possible continuum.

Whatever the nature of the particular act of measurement, four basic considerations are involved in the act. These are: the level of the measurement, the reliability of the measurement, the validity of the measurement, and the interrelationship of the act of measuring and the event being measured.

Level of measurement. In the process of assigning numbers to events, the investigator seeks data which will be amenable to manipulation by various mathematical or statistical operations. Such manipulation permits the use of data to secure new information about the events being measured. However, it is clear that the rules under which numbers are assigned to events determines the kinds of manipulations which may be permissably undertaken with any body of data. Thus, we may observe at least four general kinds of measurement, each of which produces a type of numerical data which permits only certain types of manipulation. We refer to these general types of measurement as *levels of measurement*, since they arrange themselves along a scale from the weakest form to the most powerful form of measurement, with the weakest form permitting the fewest number of manipulations, and the most powerful form permitting the greatest number of statistical manipulations.

At the weakest level of measurement, numbers or symbols are used to classify events into certain categories or classifications. Measurement by classification constitutes a “nominal scale,” and the data from such measurement permit relatively few statistical operations.²

A stronger form of measurement occurs when we go beyond the act of classification to the act of arranging events along a continuum showing the relationship of these events to one another. Thus if the opinions of listeners toward a proposition are arranged along a scale from "strongly disagree" to "strongly agree," we have used a so-called "ordinal scale" for our measurement. With ordinal scale measurements we presumably know the relationship of events to one another along some presumably continuous distribution, and we may indicate this relationship with numbers. We do not, however, know the real distance between the events to which numbers have been arbitrarily assigned, and in our manipulation of the data we are limited to those statistical operations which do not make this assumption.

A still stronger form of measurement occurs when we know the size of the distances between the events which we have ordered along some scale. Such measurement takes the form of an "interval scale." It is characteristic of interval scale measurements that the zero point for the events being measured is unknown, and in the assignment of numerals to events, the numerals used are purely arbitrary in relationship to a zero point. However the distance from one number to another is a true, or known distance. Such measurements are common in the physical sciences, as for example in the measurement of temperature with either a centigrade or Fahrenheit scale, but they are less easily achieved in the measurement of many speech events. Since data from interval scales permit more extensive forms of statistical manipulation than data from nominal or ordinal scales, considerable attention has been given to the development of interval scales in measuring attitudes, etc. We shall observe the nature of these efforts later in the chapter.

The strongest level of measurement occurs when we have a known zero point to which the numerals we assign to events are related. Measurements of length, weight, force, etc., are made on such "ratio scales," and ratio scales have been developed for measuring such speech-related events as pitch and loudness.

Reliability. How accurate is my measurement? This is obviously a basic question in any act in which numerals are assigned to events. It raises the fundamental consideration of the *reliability* of the data provided by any test, measuring device, or procedure. As used in measurement theory, reliability refers to the consistency, or stability of a measurement; or, to put it another way, the extent to which any measurement is free from chance error. Suppose one seeks to measure the intelligence quotient of a student by administering and scoring a test. Suppose further that this test places the student's I.Q. at 130, but that a week later when the same student takes the same test, or an equivalent form, his I.Q. is measured at 80. Obviously neither measure can now be trusted. For one of several possible reasons, the scores lack reliability, and one must investigate further to discover a score deserving of confidence.

The reliability of a measurement may be calculated in one of several methods, each of which involves the basic operation of correlating two sets of scores. For example, in determining the reliability of a test, one may administer the same test to the same persons at two different times, and then correlate the two sets of scores; or supposedly equivalent forms of the same test may be used to perform a measurement, and the scores correlated; or the scores obtained from supposedly equivalent subdivisions of the same test may be correlated. A fourth method of determining the reliability of a test involves calculating the consistency with which subjects respond to all items in the test. This method accomplishes the same purpose as the correlation of subdivisions of the same test (usually called the split-half method) and also provides a measure of the homogeneity of the items in a test. Similarly, if the investigator is concerned about the reliability of the ratings of observers, he may see what correlation exists between the ratings given to a series of speeches by one set of raters, and the ratings given by another set of raters. In any event, by statistical procedures, the investigator will determine a coefficient of correlation between two sets of scores, and this will become the coefficient of reliability for his measuring device or procedures. Coefficients of reliability will range from zero (0) to one (1). Zero correlation would indicate a total lack of stability in the measurement, while a correlation of one (1) would indicate perfect stability, or reliability, for the measurement.

It should be observed that calculating the coefficient of reliability of any measurement involves testing the use of that measurement with particular persons under a particular set of conditions. The reliability as thus determined, cannot be assumed to hold for all uses which might be made of the measurement. Accordingly, investigators must usually check the reliability of their measuring procedures in the particular set of circumstances in which they carry out their investigations.

Investigators often ask how high a coefficient of reliability is needed before a measuring device or procedure becomes useful. No general answer can be given. Obviously one wishes the most reliable measure possible. But it is equally apparent that if there are compelling reasons for studying certain events, and if available procedures for measuring these events yield data with only a rather low coefficient of reliability, one may still wish to proceed with the study in question. The major point to be made is that as the reliability of a measurement decreases, any judgment based on that measurement necessarily becomes increasingly tentative. As the reliability of the measurement approaches zero, it becomes useless as a basis for judgment. Another way of stating this same point is to say that as the reliability of the measurement decreases, the measurement loses power to discriminate differences in examples of the event under study. As the measurement declines in reliability, differences in data obtained may become increasingly the product of errors in measurement, rather than differences in the events being measured.

Validity. While the reliability of a measuring device or procedure can be determined with considerable precision, the question of the validity of the data obtained by measurement is less easily managed. The question of validity has been somewhat naively stated in terms of the relationship between the verbal label given a measuring device or procedure, and the label given the event presumably being measured. Thus, the investigator asks, "Does my device or procedure measure what it purports to measure?" The question calls attention to the easy optimism with which an investigator might assume that the name given to a test, or measurement procedure describes the nature of the event being measured. Thus the investigator might assume that since he has administered a test called "A Test of Intelligence," his data therefore describe the "intelligence" of those to whom it is administered. The propensity of such an assumption for producing confusion can be easily visualized. Suppose the investigator has two tests, equally reliable, each purporting to measure an assumed characteristic called "horse sense." And suppose the two tests, when administered to the same persons, yield quite different data. Now the question of the validity of the two tests rises. Did either test measure "horse sense?" Or for that matter, is there any human trait describable as "horse sense" possible of measurement? And, if reliable data do not measure "horse sense," what do they measure? It is easy to perceive the semantic traps awaiting the investigator who assumes he is dealing with a trait labeled "horse sense." It may be less easy to perceive that the same semantic problems are entailed by such labels as intelligence, critical thinking ability, defective speech, speech skill, authoritarian personality, etc.

The obvious pitfalls of assuming that the name of an index tells us what a test measures, suggest that it might be better not to ask, "What does my index purport to measure?" A better question would be, "How can I determine what my index measures?" Or, more simply, "How can I determine what my index means?" Investigators follow a variety of procedures for validating their data gathering devices or methods. Some of these involve making relatively simple subjective assumptions; others involve extensive investigation. All of these validating procedures seek to establish at some level the "meaning" of the data yielded by a measurement.

Thus, at the simplest level, a test may be validated by an examination of its content to determine if the content seems logically related to the event one wishes to measure. A test, or measuring procedure which *seems* relevant to the event being measured may be said to have "face" validity. Such validity will tend to relate to the reactions observers will have to the data obtained by the test or procedure, even though it proves little about the actual meaning of the data. "Content" validity may be examined by more extensive procedures than just subjective examination of the seeming relevance of the content. Such procedures may involve an analysis of the constituent aspects of the event to be measured, and the further examination of the test or measuring procedure to be certain that

it samples adequately all those constituent aspects. A more complicated procedure for evaluating the validity of a measuring procedure involves an investigation of the predictive efficiency of the data. To determine "predictive" validity the investigator may ask whether or not the data from some measurement will predict subsequent behaviors chosen as a criterion. Thus, will scores obtained from a vocational interest inventory predict success or failure in certain vocations? Will scores obtained from a college aptitude test predict grades obtained in college courses? "Concurrent" validity is similar to predictive validity in that it relates measurement data to some external criterion. In the case of concurrent validity, however, the external criterion is a behavior occurring at the same time that the measurement is made rather than at a later time. For example, one might ask if social fear as measured by a test relates to social fear as observed in concurrent speaking situations. Or the measuring procedure in question may be checked for its intercorrelation with other established tests or procedures.

Finally, the investigator may evaluate the "construct" validity of his test or measuring procedure. This involves the formulation of a logical construct which predicts the variation in scores which will be obtained by some measuring procedure, and then the use of the procedure to check the accuracy of the construct, or perhaps to gather data for the reformulation of the construct.

The effect of measurement procedures upon the data. Ideally an investigator seeks a measurement procedure which will provide data produced by the event under study. Unfortunately, the selection of a particular procedure in measurement may affect the data, thus producing data which are the function not simply of the event being measured, but also of the method of measurement. For example, in rating a speech performance, the rater's perception of that performance may be affected by the fact that he is making a rating, and may be affected in various ways by the nature of the rating device he is using.

Again, ideally, measurement procedures ought to serve the investigation of the most suitable or significant hypothesis produced by the investigator's curiosity. Responding to practical pressures, however, investigators may choose hypotheses for investigation on a basis of the preexistence of certain "respectable" (much used) tests or measuring procedures. Thus, not infrequently, great labor is performed in the service of sterile hypotheses simply because these hypotheses lend themselves to measurement.

These observations are intended simply to underline the fundamental interrelationship of measurement theory, and measurement procedures with the entire process of scientific investigation. They may also serve to suggest that the investigator hoping to measure any speech phenomenon ought to seek reasonable sophistication in the area of measurement theory, and in the management of measurement procedures. Such sophistication cannot be the product of the brief comments on measurement theory in-

cluded in this chapter, and the reader may wish to pursue the study of measurement theory in the increasing number of texts available in this area.^{3, 4, 5.}

INDEXES USED IN SPEECH RESEARCH

The remainder of this chapter will examine some of the large number of types of indexes which have been used in speech measurement. At some point in his research the investigator may require a test of the listeners' ability to recall or comprehend what they have heard, or an index of physiological disturbance under stress, or a criterion of speech improvement, or an index of articulatory deficiencies, or a method of observing and recording the behavior of individuals in discussion groups. The investigator may be able to find suitable indexes among those which have already been used, or he may find it necessary to invent his own. The authors hope that the materials which follow will be helpful in either case.

We will examine the following types of indexes, cite examples to show how they have been used, and discuss some of the problems involved in their selection and development.

1. Personal Inventories.
2. Measures of Critical Thinking.
3. Attitude Scales.
4. Ballots and Questionnaires.
5. The Semantic Differential.
6. Retention and Listening Tests.
7. Intelligibility and Articulation Tests.
8. Measuring with Instruments.
9. Rating Scales.
10. The Opinion Meter.
11. Counting Procedures.

The categories indicated in the foregoing list should provide the reader with few problems of interpretation except for numbers 1, 3, and 5. Under Personal Inventories will be included any test, regardless of title, which is employed as an index of personality. Under Attitude Scales we will describe those devices used to measure strength of opinion on social and political issues or concepts. Category 5, The Semantic Differential, refers to a specific device used in the measurement of meaning.

It should be observed that we are using categories of measurement procedures to organize our discussion, rather than using categories of speech phenomena. We have sought to include examples of the use of various indexes in the measurement of a variety of speech phenomena. However, in many cases the reader will need to infer ways in which a type of index might be used in relation to the particular aspect of speech which most interests him, and he will need to read the research reports in his own area to make judgments concerning the development and status of measurement practices in that area.

The examples cited of the use of various indexes were selected because it was thought that they provided clear illustrations of use, and because they appear for the most part in publications readily available through large libraries. They should not be thought of as necessarily representing the authors' judgments of the best or most skillful use made of any given index. Moreover, although the examples are distributed as to their date of publication in order to give some sense of the developing use of certain types of indexes, no attempt has been made to provide a history of the development of measuring procedures in speech, or to draw conclusions as to trends in measurement practices.

1. *Personal Inventories.* Relationships between speech and other personal attributes have intrigued the interests of a number of investigators in the field of speech, and a rather lengthy list of formal tests of personality have been employed. We will begin with some which were developed expressly to explore such relationships, and then mention others which were originally developed for more general purposes.

Among the former is the *Speech Attitude Scale*, the development of which was reported in considerable detail.^{6, 7} The first step was the accumulation of statements intended to reflect the attitudes of an individual toward talking in various circumstances and situations including not only public address but social conversation and interviews as well. The statements were scaled to permit numerical scoring, and tried out on sizable groups of high school and college students.

The author then proceeded to find out which items contributed most to the differentiating power of the test. To accomplish this, two groups were selected from the main body of the subjects, one composed of students who were well-adjusted to speaking situations, the other composed of students who were relatively poorly adjusted. In selecting these criterion groups the author used not only the *Speech Attitude Scale* scores but also teacher ratings and self-ratings. The reactions of the two groups to each statement were compared, and through a succession of such experiments ninety-six significant items were selected.

As we have already indicated, the two questions of reliability and validity almost invariably arise in connection with the evaluation of any new measuring device or procedure. To determine reliability, Knowler correlated data obtained from one half of the test with data obtained from the other half, and then applied a formula to derive a coefficient of correlation representing the stability of the total scale.⁸ Through these and other operations, he found the reliability of his scale to be adequate for both group and individual testing.

As is usually the case, the search for information about the validity of the measuring device proved more complicated than the investigation of its reliability. Knowler sought information on the "meaning" of the scale by correlating data obtained by its use with a number of other indexes, including teachers' ratings, and self-ratings by the subjects. He found low, but statistically significant correlations with these other indexes.

However, since none of the indexes provided a decisive criterion of the "meaning" of the scale, the nature of the variable measured by the *Speech Attitude Scale* must be inferred from its relationship to other indexes, the characteristics of its items, and from further evidence as to the usefulness of its data in practical diagnosis and formal research.

Knower also developed the *Speech Experience Inventory*, which shows satisfactory reliability for both individual and group testing and can be used as a criterion of negative compensation in studies centering on group trends, as, for example, in investigations of speech improvement. However, the value of the instrument for research purposes would be increased if its coefficient of reliability were raised, and it is conceivable that this could be accomplished by increasing the number of its items.

Personal Report on Confidence as a Speaker was also designed for the purpose of exploring relationships between speech and personality.⁹ It contains fifty items reflecting varying degrees of fear and fifty indicating varying degrees of confidence, these having been included in the inventory on the basis of the same type of item analysis described in connection with the development of the *Speech Attitude Scale*. When used in the classroom the inventory is usually filled in by each student at the conclusion of a round of speaking, it being assumed that the recency of speaking before a group increases the accuracy with which the individual reports his emotional experiences. The subject indicates "Yes", "No", or "?" for each of the one hundred statements in the scale, and his final score is the algebraic sum of the fearful and confident "Yes" responses. This scoring was adopted after experimental comparisons with two other methods.

Scores based on the odd-numbered items correlated .87 with scores based on the even-numbered items. Correction by the Spearman-Brown formula for doubling the length of the material raised the correlation to .93. This indicated satisfactory reliability, a characteristic which the *Report* seems to retain when the number of its items is considerably reduced.¹⁰ In the original study correlations of .39 and .41 were found between *Report* scores and ratings of general speech effectiveness.

The Personal-Social Adjustment Inventory was designed by Miller and Murray to measure aspects of personality which they considered to be significant in relation to speech behavior. It was based on concepts described in *The Speech Personality*,¹¹ and was scaled to measure directly the following: egocentric introversion, mentally objective introversion, egocentric extroversion, and mentally objective extroversion. The published reliability coefficients for the four scales ranged from .81 to .88, somewhat low for individual testing, but adequate for studies of group trends.

The inventories mentioned have been used not only for exploring relationships between speech and personality, but also in studies of the effect of speech training on personality. Representative examples of such studies have been reported by Gilkinson,¹² Leyden,¹³ and Nelson.¹⁴

In addition to the instruments which have been mentioned, there are

other personality inventories which have been used in studies of speech, most of which originated in psychology. Space does not permit the listing of all of them; we will mention four which differ from the inventories already described either in respect to the aspects of personality measured or the ways in which they have been used.

Drake ran correlations between thirteen scores provided by the *Minnesota Multiphasic Personality Inventory* and ratings on skill as an actor.¹⁵ The coefficients were generally low, but three were statistically significant for male subjects, four for female subjects. The same investigator also used the Allport and Vernon *Study of Values* and found that actors scored relatively high in aesthetic interests.

Bell's *Adjustment Inventory* was used by Paulson in comparing the personalities of students who gain most in social confidence while taking speech courses with those who gain least.¹⁶ The two groups differed significantly in respect to social adjustment. Sikkink used the *Minnesota T-S-E Inventory* in a similar study and found greater social extroversion among the students who gained confidence than among those who reported little or no gain.¹⁷

2. *Measures of Critical Thinking.* A wide variety of tests designed to measure generalized intellectual capacities have been used in speech studies. Such tests of intelligence or scholastic aptitude are commonly administered to school populations at all educational levels, and for this reason the scores often serve as one "ready made" basis for matching groups of students to be studied, or as one variable to be considered in whatever complex of variables may be under consideration. A large number of investigators have studied the relationship between speech skill and intelligence as measured by a variety of tests.^{18, 19, 20.}

One complex intellectual capacity, usually labeled critical thinking ability, has received considerable attention in speech research. The curiosity of investigators in speech may have been whetted by the seeming relationship of the goals of instruction in public speaking, argumentation, discussion and debate to ability in critical thinking.

Over a period of years, the Watson-Glaser tests of critical thinking, now known as the Watson-Glaser Critical Thinking Appraisal,²¹ have been used in speech studies as an index of critical thinking ability. At the present time, each of the two forms of this test includes 99 items, divided into five sub-tests entitled inference, recognition of assumptions, deduction, interpretation, and evaluation of arguments. The authors of the test report five studies of reliability, showing coefficients of reliability for the total score on one form of the test ranging from .79 to .93. They also report procedures in validating the test in terms of its content, its homogeneity, and its ability to distinguish groups rated as superior or weak in critical thinking ability.²²

An early form of the Watson-Glaser test was used by Howell in a study of the effects of high school debating on critical thinking.²³

Brembeck also used the Watson-Glaser tests as an index of critical thinking ability, and studied the effects of a course in argumentation on critical thinking ability.²⁴

While other studies have been reported using the Watson-Glaser tests as an index of critical thinking ability, the study of the measurement of this ability has not been limited to this test. Johnson describes procedures in the development of a test of reflective thinking ability, and in the appraisal of the reliability and validity of the test as developed.²⁵

3. *Attitude Scales.* In the first studies of audience response to speeches, two types of attitude measurement were employed, both prominently featured in the literature of psychology. One is called the Thurstone scale, and is based on the method of equal appearing intervals; the other is referred to as the Lickert scale and is based on the method of summated ratings. Both types of scales seek to measure the attitudes of subjects toward social and political issues by eliciting scaled verbal responses toward the issue in question. Numerical values are assigned to choices provided by the scale, and scores are derived from the use of the scale which will distribute individuals along a continuum from highly favorable through neutral to highly unfavorable attitudes toward the issue in question.

The two types of scales are prepared with somewhat different procedures; each claims certain merits by virtue of its design, and each is subject to certain criticisms. The Thurstone type scale is typically constructed by having a large number of judges sort a large number of statements about an issue into eleven piles, arranged along a hypothetical continuum from highly favorable to highly unfavorable. The median location for each item is then determined and taken as the scale value of that item. Some twenty or twenty-two items are then selected which seem to be evenly spaced along the hypothetical continuum. Since the intervals between the items appear to be equal, it is assumed that numerical values can be assigned to each item, and that the attitude of the respondent using the scale is expressed by the median of the scale values assigned to the items he checks.

The elaborate procedure followed in preparing a Thurstone type scale in order to obtain equal appearing intervals is of interest in that it reveals one of the persistent problems attached to the assignment of numerical values to choices made by a respondent on an attitude scale. The numerical values are needed if the data is to be susceptible to statistical treatment as interval scale data, but is there any way of determining that the numerical values assigned are not simply arbitrary choices? Even the equal appearing intervals on the Thurstone scale cannot be demonstrated to represent attitude strengths which are absolute in their mathematical distance from one another. Moreover, while the items in the Thurstone scale are ranged along an assumed single continuum, it is quite possible that more than one attitude continuum is represented in the selected items, and that the scale is not uni-dimensional even though it is treated as such. Other theoretical problems rise in connection with the Thurstone type

scale, but these cited will serve to reveal some of the considerations involved in the preparation and use of such scales.

The Lickert type scale is prepared with a varying number of statements relating to the issue in question. The respondent is asked to respond to each statement by checking one of five responses ranging from "strongly agree" to "strongly disagree." An arbitrary numerical weight of one to five is assigned to the responses he checks. The principal effort in the preparation of a Lickert type scale is the pretesting of a large number of items, and the selection for the final scale of items, the scoring of which correlates most strongly with each respondent's total scoring of all items. Thus the items in the final scale may be said to have internal consistency—to represent a group of items each of which is likely to be closely linked to the particular attitude being measured. While achieving a claim for internal consistency, the Lickert type scale abandons any rationale for assigning particular numerical values to the points checked for each scale item.

There has been considerable discussion of the relative merits of the Thurstone and Lickert Scales.²⁶ We are not inclined to question the technical value of either type, nor to question the fact that either type leaves unanswered certain pertinent problems. We do, however, agree with Bird who reviewed the evidence and concluded that "both types of scales are capable of picturing to us the attitude variable we wish to investigate and of serving the end of measuring the influence of various factors such as argument, education, and propaganda upon attitudes."²⁷ Some examples of the use of both types of scales in speech research follow.

Knower used a scale of the equal appearing intervals type in a study of the effect of oral argument on changes of attitude.²⁸ It was one of a number of scales developed by Thurstone and associates, and was designed to measure attitude toward prohibition. Forms A and B of the scale were combined to increase reliability of measurement, the individual index being the mean of the two forms scored separately. Among the control subjects a test-retest correlation of .88 was found for the combined forms, which was considerably higher than the test-retest correlation found for single forms. The argumentative appeals presented to the experimental subjects caused a significant change of mean attitude, logical and persuasive speeches being equally effective.

Dietrich developed a Lickert scale, designed to measure attitude toward Russia, for use in a study of speech delivery. The published report of the investigation contains a description of the steps taken in building the scale.²⁹

One practical objection to the use of both the Thurstone and Lickert scales in the study of spoken communication is that the construction of either requires a good deal of time.³⁰

A possible solution lies in the use of a generalized scale, based on the method of equal appearing intervals, and designed to measure attitude toward any institution or social action. Remmers used such a scale to

measure the effects of a lecture on the League of Nations upon the attitudes of 180 college freshmen.^{31, 32} Two equivalent forms were employed, one before and one after the lecture. Cromwell also used the generalized type of scale in studies of oral communication.³³ These investigations indicate the conveniences of the scale and its sensitivity as a measure of the effects of oral argument.

Another possible choice is the more recently developed Guttman type scale, which claims as its principal merit the fact that it eliminates items not on a principal attitude continuum, and that hence it is unidimensional.

Although construction of the scale requires data from a group of subjects, two hundred or more in some cases, the statistical work is not extensive or difficult. Among the various types of scales which we have mentioned, it ranks above the Thurstone and Lickert scales in respect to convenience, but not, of course, above the generalized scale.^{34, 35, 36}

4. *Ballots and Questionnaires.* The shift-of-opinion ballot was first used by Woodward.³⁷ He was interested in the reactions of audiences to debates, gathered information on numerous occasions until he had data on over three thousand listeners. Before the contest the subject was asked to check one of the following statements:

I believe in the affirmative of the resolution to be debated.

I am undecided.

I believe in the negative of the resolution to be debated.

After the contest he was asked to check one of the following:

I believe more strongly in the affirmative of the resolution than I did.

I believe in the affirmative of the resolution.

I am undecided.

I believe in the negative of the resolution.

I believe more strongly in the negative of the resolution than I did.

Millson provided a simple mathematical scoring of the ballot by giving each shift a value of one, and dividing the difference between the affirmative and negative shifts by the total number of auditors voting.³⁸ Monroe applied standard procedures for determining the significance of percentage differences to the Woodward ballot, and investigated its validity and reliability.³⁹ A correlation of .75 with the Thomas Scale (a generalized attitude scale) was interpreted as evidence of validity, and satisfactory reliability was indicated when twenty-seven or more auditors were used.⁴⁰ Because of these demonstrations of reliability and validity, and ease of administration, Haiman used the Woodward ballot in an experimental study of the effect of ethos.⁴¹

Another and even simpler use of ballots is represented in a study of the relative effectiveness of two forms of argumentative speaking.⁴² The auditors indicated their opinions on the main theme of the speech and on three supporting propositions by checking "yes", "no" or "?", this being done before and after hearing the speech.

Some audience response studies have been based simply on one or more

questionnaire items. Hovland, Lumsdaine, and Sheffield reported such an investigation, concerned with the reactions of army personnel to a speech designed to convince them that the war in the Pacific would last at least two years after VE Day.⁴³ The experimental subjects filled in two questionnaires, one before and one after hearing the speech, both containing the following key question:

“What is your best guess as to how long it will probably take us to beat Japan after Germany’s defeat? (Write your guess below.)

About from the day of Germany’s defeat.”

The use of two questionnaires which differed in form, content, and place of administration, was intended to conceal from the subjects the fact that an experiment was being performed.

The investigators found what per cent of each group of auditors increased their estimates, by one-half year or more, and what per cent decreased their estimates, and took the differences between the two figures to represent the “net change” of opinion. They then subtracted the “net change” of the control group from the “net change” of each experimental group to get indexes of “net effect” for the latter.

5. *Semantic Differential*. Osgood, Suci, and Tannenbaum describe the semantic differential as a “highly generalizable technique of measurement.”⁴⁴ The object of the technique is to provide an index of the meaning of concepts, whether those concepts are written or spoken words or phrases, or are pictures or other objects. The type of meaning described in typical use of the differential would seem to be connotative. The technique grows out of a considerable logic concerning the nature of meaning and the nature of semantic space and its dimensionality. It also grows out of considerable research using factor analysis to search out general factors of meaning operating as dimensions of semantic space, and to identify the “loading” of pairs of polar adjectives in relation to these factors. Thus, in their book, Osgood, Suci and Tannenbaum describe the procedures by which they identified the factors of evaluation, potency, and activity as dimensions of semantic space.⁴⁵ Their emphasis is on the method by which these factors were identified, since they do not contend that these are the factors which would appear in relation to all concepts. These authors also describe the method by which they establish the factor loading of pairs of polar words. This process serves as the basic rationale for selecting the sets of polar words to be used in formulating a semantic differential.

Although the logic out of which the semantic differential develops is complex, the form taken by the device, and the method of its use are relatively simple.

Suppose an investigator wishes an index to the meaning of a concept such as the name “Dwight Eisenhower” in terms of the response of some sampling of population to this name. Suppose further that after suitable

investigation it is determined that the factors, or dimensions of “evaluation,” “potency,” and “activity” are the relevant dimensions within which the meaning of this name is perceived. The investigator then selects sets of polar adjectives, (as “strong-weak”), each set of which is maximally related to one of the three dimensions, and minimally related to the other two. To use the language of factor analysis, the polar adjectives in one set will be selected because each pair defines a category of response which is maximally loaded in relation to the factor of “evaluation,” and minimally loaded in relation to the factors of “potency,” and “activity.” The polar adjectives in the other two sets will be selected because they have a similar capability of providing a discriminating response in terms of the factors of “potency” and “activity.” We shall not describe here either the logic or the method by which selection of a suitable number of polar adjectives is accomplished, except to point out that the care with which selection is made will affect the meaningfulness of the data obtained from the use of the semantic differential. Obviously each pair of polar adjectives must be judged for its relevance to the concept being investigated, (in this case, “Dwight Eisenhower”), and for its stability and linearity.

To prepare the semantic differential for use, the selected pairs of polar adjectives are then placed on a form, with the two words in each pair used to define the extremes of a seven point scale. The number of points on the scale is arbitrary, although the seven point scale has been customary in research thus far undertaken. Suitable instructions must also be prepared to direct the respondents in their use of the scale, and Osgood, Suci, and Tannenbaum describe typical instructions, as well as other practical considerations implicit in the use of the form.⁴⁶ Stripped of any printed instructions, and abbreviated to show only three pairs of polar adjectives, our semantic differential for measuring the meaning of the name “Dwight Eisenhower” might appear as:

fair''''''	unfair
strong''''''	weak
active''''''	passive
etc.							

In this illustration, the polar words for the first scale would seem related to the factor of “evaluation”; those of the second scale to the factor of “potency” and those of the third scale to the factor of “activity”. But in interpreting this abbreviated differential, one should keep in mind that each of the three factors would be represented by a series of polar words, each pair with its own scale, rather than by just one pair, and one scale.

In using the semantic differential, it is usual to ask the respondent to check the space in each scale representing his reaction to the concept in question. Digits, or numerical values are assigned to these spaces, permitting the recording of quantitative data which can be treated in a variety

of ways: cumulative data for a group of respondents may be presented graphically; mean scores on each scale or each factor may be calculated; data may be used to describe similarities and differences in the meanings of two or more concepts, or in the meaning of the same concept for two or more groups; changes in the meaning of a concept may be described, etc. The theoretical problems involved in collecting and treating statistically the data from a semantic differential are similar to those involved in the use of any scaling device.

Although the semantic differential rises out of a theory of meaning, rather than a concept of attitude, it is obviously usable as an index in many of the same situations in which a study of attitude, or attitude change might seem appropriate. However, as compared with commonly used attitude scales, the semantic differential would seem to promise a more versatile and discriminating index of response to concepts and objects. For example, if one were investigating the attitude of a particular population toward the "United Nations", one might find that this population has a highly favorable attitude toward this institution. Using a semantic differential with the same group, one might find that the group perceives the meaning of the term "United Nations" as having high value, low potency, and moderate activity.

Nebergall made use of the semantic differential in an investigation of rhetorical clarity,⁴⁷ while Berlo and Kumata report use of a shortened version in an investigation of the impact of a radio drama on an audience.⁴⁸

6. *Retention Tests and Listening Tests.* Another important index of audience response is the retention test, employed in investigations of informative speaking. Typically in such experiments some feature of presentation is varied and outcomes are compared to determine which form stimulated the greatest recall, or, in other words, conveyed to the listeners the greatest amount of information. Or, interest may center on possible relationships between the amount of information conveyed, and such audience variables as sex, political attitudes, interests, education, intelligence, etc.

Beighley used retention tests in a study of the effects of four speech variables: oral versus visual presentation, vocal skill of the speaker, difficulty of the material presented, and organization of the material.⁴⁹

Nichols used a retention test in a study of factors influencing the listening of college freshmen.⁵⁰ It was designed to measure their comprehension of lecture materials.

In both of the foregoing instances care was taken in test construction. The items in the final forms were selected from a larger number on the basis of group comparisons, and they were chosen with due regard to how well they represented the content to be tested. Test reliability was determined. The steps indicated are standard procedures in the construction of retention tests when individual scores are to be used as a basis for group comparisons or for correlation.

The foregoing retention tests were devised as an index of recall in particular experimental situations. Listening has also been considered as a generalized intellectual skill, and tests devised to measure relative listening ability. Such tests usually include standard stimulus materials, and response items based on these materials. While comprehension and recall of information is ordinarily considered as an aspect of a listening test, other aspects of listening are also tested. Brown has reported procedures followed in the construction of a test of listening ability,⁵¹ and the *Brown-Carlsen Test of Listening Comprehension* emerged from these procedures.⁵² Each of two forms of the test includes five divisions: immediate recall, following directions, recognizing transitions, recognizing word meanings, and lecture comprehension. Three reliability studies are reported for the test, each conducted with populations drawn from tenth and twelfth grade students. These studies made use of the "split half" method of determining the coefficient of reliability for half-segments of the test, and applied the Spearman-Brown formula to determine the coefficient of reliability for the entire test. Reported coefficients of reliability range from .84 to .90. The homogeneity of items in the sub-tests was examined as a study of item validity, with reported coefficients of item validity for the five sub-tests ranging from .31 to .53. Norms exist for the test from the ninth grade through the college freshman year.

Brown used the Brown-Carlsen test as an index of listening ability in investigating the amenability to training the skill measured by the test.⁵³

Biggs also has reported the construction, validation and evaluation of a diagnostic test of listening effectiveness.⁵⁴ Biggs constructed a battery of seven subtests of listening effectiveness: (1) ability to grasp the central idea of a speech; (2) ability to retain pertinent content and make valid inferences; (3) ability to recognize main and supporting ideas in a speech; (4) ability to hear differences in meaning in similarly worded statements; (5) ability to recognize correct or incorrect usage of a word; (6) ability to grasp meaning of a word from contextual clues; and (7) ability to comprehend oral instructions. Reliability coefficients for five of the subtests ranged from .7558 to .8224, while the coefficient for the "content and inference" subtest (No. 2) was .6615, and that for the "main and supporting idea" subtest (No. 3) was .2368. The estimate of reliability for the entire test was .7899.

As a criterion for measuring the validity of the test Biggs used an instructor rating scale. Instructors were asked to rate students taking the test by checking one of three behavior descriptions for each of five questions concerned with the listening-related behavior of each of the students. Reliability of the rating scale data was checked, and a coefficient of validity for the entire test obtained by correlating scores on the test with scores on the rating scale. This coefficient proved to be .6686. Biggs also examined the relationship of the ability measured by the listening test to the abilities measured by a standard reading test, and a test of scholastic aptitude.

Other tests of a skill labelled “listening ability” have appeared.⁵⁵ While these tests provide data reliable enough to be usable by investigators, more study is needed of the meaning of the data—particularly of its relationship to factors in other tests of general intellectual abilities, and of the predictive value of the data in relation to academic, vocational, or other performance.

7. Intelligibility Test and Articulation Tests. One of the factors involved in the variations of skill among speakers is the capacity to articulate words so they can be correctly recognized by a listener. This is an obviously important feature of good speaking, and particularly so when vital messages are being sent via voice in high level noise. This led to an intensive program of research on intelligibility by the Navy and the Army Air Corps during World War II. The program is still being carried on in cooperation with various colleges and universities.

In the intelligibility investigations during the war, word lists were employed which had been equated for mean difficulty and variance. Speakers were tested in groups of ten or twelve in round robin fashion; each subject read one list as the others listened over an aircraft intercommunication system. Most of the test was done in the presence of 110 db of simulated airplane noise. In the earlier studies, the listeners were asked to write down the words which they heard on a prepared form, but later, multiple choice tests were developed which could be scored more conveniently.

Additional forms of the multiple-choice type have appeared since the war and the steps involved in the development of such tests have been described.⁵⁶ In general, the procedures are concerned with the selection of words, with the formulation of word lists which are equal in respect to average difficulty and variability, with the internal consistency (reliability) of the tests and their power of discrimination.

The tests developed during the war were adapted to the investigation of voice communication in high noise levels, and the mean scores tend to be high when they are employed under conditions of relative quiet. This elevation of scores and the accompanying reduction of variability do not entirely destroy the usefulness of those instruments as tests of intelligibility at normal noise levels; it has been demonstrated that they still retain some power of discrimination.⁵⁷ But there is a recognition of the need for tests specifically adapted to quiet conditions. This is shown in Black’s description of his multiple-choice Forms C and D, and in Kelly’s use of his X-Test for classroom testing.⁵⁸ The tests which are adapted to normal conditions are generally more difficult than those adapted to noise.

Since the identification of errors in articulation is one of the necessary procedures in the diagnosis of defective speech, tests of articulation have developed as an important speech measurement. In general, the articulation test seeks reliable identification of the presence of articulatory errors in the speech of the subject being tested. In typical practice, the test is administered to the subject by an examiner, and usually consists of a series

of stimulus situations designed to elicit speech in the subject for which the range of common English consonants would be required. The examiner notes those consonants for which omission, substitution, or distortion occurs. A variety of stimulus situations may be used depending on the age level of the child, and the thoroughness with which the test is to be conducted. Such situations may be arranged in levels so that errors noted in the first level of testing can be confirmed or dismissed as the subject attempts the same sound in subsequent levels.

Extensive treatments of the construction and administration of articulation tests have been published.^{59, 60, 61}

Since simple frequency counts of articulatory errors do not seem an accurate index of the severity of speech deviation, a number of approaches have been used to the problem of establishing a quantitative index of the relative level of articulatory disability. Wood developed a so-called "articulation index" for this purpose.⁶²

The index was based upon previous research seeking to establish the relative frequency with which each consonant sound appears in connected discourse. The relative frequency with which the sound is used is assumed to be its relative value. Assuming that the index is 100 for speech in which no articulatory errors appear, the index for each subject becomes 100 minus the sum of the values of sounds identified as errors in the subject's speech.

Pettit used an articulation test administered to seventy-two five year old children, and converted scores from the test into an articulation index score, based on Wood's method with some elaborations.⁶³

Other approaches have been used to the problem of measuring the level of articulatory ability. Wright developed a seven point descriptive scale to be used for each speech sound,⁶⁴ and supplied an arbitrary numerical score for each point on the scale. Wright's scale started with a checkpoint for correct production of a sound, and proceeded through four levels of sound distortion, to the level of sound substitution, to the level of sound omission.

Morrison has described a method of obtaining a measure of articulatory defectiveness for short segments of recorded speech, based on the method of equal appearing intervals previously discussed in this chapter in connection with the Thurstone-type attitude scale.⁶⁵ Morrison presented recorded segments of the speech of a group of 60 children to groups of observers who were asked to place each sample at one point on a nine point severity scale. Thurstone's method was then followed to obtain the median scale value of each speech sample. Morrison also investigated the duration of speech samples needed for rating, and found that reliable scale values could be obtained both for segments five seconds long, and for segments ten seconds long. She constructed tape recorded severity scales for use in training individuals to recognize various levels of articulatory disability.

8. *Measurement with Instruments.* A wide variety of speech events are subject to direct measurement by the use of instruments. The development of increasingly discriminating instruments for the measurement of speech phenomena—particularly electronic equipment for acoustic analysis—seems a continuing trend in speech research. For example, instruments have been developed for direct reading analysis of the fundamental frequency of speech sounds;⁶⁶ for measuring intensity; for measuring amplitude; for spectrum analysis of voice quality;⁶⁷ for the production of sound spectrographs from which frequency, time and wave composition can be analyzed.⁶⁸ An excellent survey of the instruments used in speech measurement is available, and no effort to recapitulate this information would be appropriate here.⁶⁹

From the viewpoint of measurement, the data furnished by instruments have obvious attractions. Speech phenomena are measured directly, and while instruments may err, their capacity for producing highly reliable data is notable. If one recalls the worrisome questions which arise concerning data collected by attitude scales, or personality tests, or rating or counting acts performed by observers, the data furnished by instruments seems almost miraculously trouble free. Instruments not only collect more reliable data than human observers, but they are often capable of much higher levels of discrimination in the analysis of certain phenomena. Moreover, the data may often be related to some rational zero point, permitting the most powerful forms of statistical analysis to be applied to the data. As is usually the case, such advantages from a measurement viewpoint are accompanied by problems from the total viewpoint of research. While data from instruments usually possess a high order of face validity, i.e., the event being measured is known and definable, meaningfulness is often problematic in relation to a very large number of the relationships of interest to investigators in speech.

An enormous range of investigation has been carried out in the development and use of instruments for measuring speech or speech-related phenomena. As examples of the range of investigations we cite studies in which three widely differing types of measurement using instruments have been made.

Snidecor employed a phonophotographic technique to measure the pitch and duration characteristics of superior female speakers.⁷⁰ Eight female speakers were selected from a larger sample as superior speakers on a basis of ratings received in an articulation examination, an oral reading performance, and an impromptu speech. Each speaker recorded a selected prose passage four times. The best of the four recordings as determined by a group of raters was selected for analysis. A photographic record was made of the pitch characteristics of each recording, using a phoneloscope. This instrument translates sound energy from a recording into a wave length tracing on a film, with the tracing segmented into arbitrary time units. Data from the recordings, and the phoneloscope tracings were then

analyzed to determine median pitch levels used by the speakers, the pitch distribution, the extent and duration of phonation, the extent, duration, and direction of inflections, the extent of shifts, both within and between phrases, and the rate of speech as expressed in words per minute.

In a study of the masking effect of prolonged vowel sounds on English words, O'Neill and Dreher used a variety of test instruments to establish recordings balanced for intensity, to conduct octave band analysis, and to prepare spectrographic displays for analysis.⁷¹

Kretsinger noted that many studies of audiences were based on the judgments of the listeners, and undertook to develop a procedure for collecting data in which the subject would be unaware that his behavior was under observation.⁷² His preliminary hypothesis was that the bodily movement of a group of listeners is inversely related to their interest, and he set about to test this assumption experimentally.

His first tasks were the assembling of electronic equipment suitable for the measurement of bodily movement, and the testing of the sensitivity of the equipment. A wire was extended in an inconspicuous position along the backs of the chairs to be occupied by the subjects and connected to the equipment which was out of sight in another room. Tests were run to determine the responsiveness of the machine to different types of bodily action, and mean scores were computed for each of ten inches of forward movement, and the investigator was then ready to test his preliminary hypothesis that the extent of bodily movement was inversely related to audience interest.

9. *Rating Scales.* The criteria of audience response which we have discussed in the preceding sections call upon the subject to perform a variety of tasks. The attitude scales, ballots, and questionnaires require him to express an opinion on some issue or proposal. Retention tests asks him to recall specific items from a speech which he has heard. In intelligibility testing he is asked to correctly identify spoken words. When the movement meter is employed he is asked only to sit and listen.

There is still another general type of data-gathering in which the subject plays a yet different role; his attention is called directly to the behavior of the speaker and he is asked to register some sort of commentary about it. For the investigator this is a means of gathering what might be called observational data, a common form of which is seen in the comments made by teachers and students in a speech class. While free commentary of the latter sort is of interest, particularly as the raw material of content analysis studies, the investigator usually prefers data which can be more readily quantified, and thus can be subjected to checks and controls with respect to reliability and validity. This preference has led to the use of the criteria to be discussed in this and the next two sections: rating scales, counting procedures, and the opinion meter. Before taking up these forms individually we will note two or three characteristics of observational methods in general.

Observations may be directed at *appraisal* or at *description*. Thus the statement that a speech is “effective”, or that it is “good” is an appraisal; while the statement that the “speaker’s attitude was hostile”, is descriptive. It may be noted that the latter statement is implicitly an evaluation, but this is not necessarily the case. That is to say, while “hostility” may be a generally ineffective attitude for the speaker, it is also true that ordinary observations of speech acts commonly contain a mixture of description and appraisal. Observation for purposes of research ordinarily requires a closer, or narrower definition of the data being gathered, and thus may need a sharper departmentization of data involving appraisal, and data involving description.

Observations of a speech event may be made by participants in that event, or persons whose only function is to observe. Thus, the members of an audience for a public speech may be considered as participants in a speaking event, and yet be asked to make observations concerning the performance of the speaker. On the other hand, an observer may “sit in” on a discussion and make observations concerning the discussion while presumably remaining aloof from either overt or covert participation. The distinction between the participating and the non-participating observer is doubtless relative rather than absolute. The latter is receiving the same sort of sensory stimuli as the former and is thus inevitably involved to some extent.

Observation may be made of the speech event as it occurs, and this procedure has the advantage of giving the observer access to all of the overt behavior going on during the event. On the other hand, it may be desirable to preserve a speech sample for later observation and analysis. In such cases, motion pictures with sound track provide the most complete record, but the complexity and cost of securing them have limited their use in research. Voice recordings permit a significant portion of a speech to be preserved, and they have been used in a number of investigations. The transcript of a speech preserves a smaller portion of the original event, but permits a type of analysis of the speaker’s language, not possible at the time the speech was delivered.

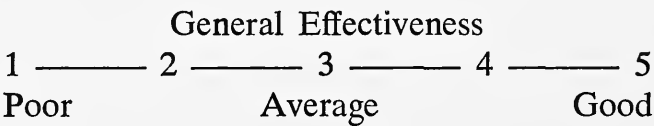
In rating speech events, the observer may use a number of forms of rating. He may use a nominal scale, in which case he simply classifies the events into two or more categories for which names have been supplied. Classifying speeches into the categories “good, average, and poor” would be an example of a simple nominal scale. He may use the method of rank order, ranking the events from first to last according to some criterion or criteria. Rank orders performed by one observer provide a so-called ordinal rating. That is, the events are “ordered” along a continuum but no assumption is made that the mathematical distance between the event rated first, and that rated second is the same as the distance between the second and third rated events, etc. Investigators sometimes supply numerals as translations of the placement of an event on an ordinal scale, and then

treat these numerals as though they represented a mathematical measurement of the placement of each event along the continuum. This is dubious practice to the extent that it converts an ordinal scale into an interval scale by fiat. It is possible, however, to establish a rationale for treating some data derived from ordinal scales as interval data.⁷³

Probably the most common rating form is the ordinal rating scale which asks the observer to place the event being observed at some point or position along a continuum. Such rating scales, modified in various ways, have been very widely used in speech investigations. For example, such a scale may indicate as few as three points on the continuum, although scales with five and seven points are common. The number of points on the scale will usually reflect the investigator's practical judgment as to the fineness of discrimination which an observer can make of the event under study, or as to the fineness of discrimination needed for his study. Digits may be supplied for points along the scale, raising again the question of the justification for treating data assembled on ordinal scales as though the intervals on the alleged continuum were known.

The scale may require only a general appraisal of the total act of speaking, or it may be composed of a number of separate parts, each referring to a single aspect of speech such as posture, voice, action, etc. The Bryan-Wilke Scale is an example of the latter type.⁷⁴

The scale may be accompanied by only a few verbal designations which are abstract in character, or there may be a number of more concrete terms. An example of the former would be a "general effectiveness" scale accompanied only by three general terms:



In the latter case terms such as slovenly posture, weak voice, and listlessness, might be listed on the left of the scale, with such terms as energetic, conversational, etc., on the right. Such concrete terms could be employed by the investigator to direct the observer's attention to certain features of speech behavior. He might have some reason for thus trying to influence the observers' judgments, but if he wishes to secure their spontaneous reactions the use of such terms could easily become a source of error. In any event, a training period for the observers would probably be a better way of structuring their responses, if that is necessary or desirable.

Speech instruction, and speech theory have traditionally proceeded from the use of observer appraisals as the criterion for distinguishing good speech from poor speech. It is understandable, therefore, that considerable effort has been made to systemize and quantify such appraisals through the use of rating scales, to study the significance of the data collected through the use of such instruments, and to investigate the relationships of

rating scale data to other data about speaking events. Reference will be made here to four different sorts of studies of speech which have involved the use of rating scale data.

(1) Rating scale data have been used as a criteria in measuring the effects of speech training. Thus students may be asked to undertake equivalent speaking assignments at the beginning and end of a period of training. Ratings of these "before and after" speaking performances may then be analyzed for evidence that improvement did or did not take place. Such studies have been used to measure the effects of a particular training program,⁷⁵ and have also been undertaken to compare the results of different training programs, or different sorts of pedagogy.⁷⁶

(2) Rating scales have been used to pick out groups of good and poor speakers as the basis for studying the correlates of speaking skills. A number of studies of this sort have already been cited in this chapter.

(3) Rating scales have been used to study the differences in the appraisals given by different groups of listeners to the same speaking events. Thus, Gauger undertook to discover differences and similarities in the ratings given by speech teachers and speech students to the same speaking events.⁷⁷ Bryan and Wilke compared the rating habits of persons differing in respect to age and sex.⁷⁸ Monroe, Remmers, and Venemann-Lyle correlated speech grades given by speech instructors with the ratings students made of one another's speeches.⁷⁹ Thompson compared the accuracy and liberality of ratings given by different speech classes to speech performance.⁸⁰

(4) Rating scales have been used as one of the criteria for measuring differential responses to speaking events incorporating controlled differences. Thus Cantril and Allport presented pairs of short speeches to an audience, with the presence of repetition of main points in one of each pair as the controlled differences in the speeches. Both rating scales and retention tests were used as measures of the effects of the use of repetition.⁸¹ Willis, in studying the relative effectiveness of three forms of radio presentation (straight talk, dramatization, and combined talk and dramatization) used a measure of attitude change, and ratings of "preference" as criteria of effectiveness.⁸²

Because of the widespread use of rating scales in speech instruction, speech contests, and speech research, the meaningfulness of the data yielded by them has been the object of extensive study. Thus, the problem of securing statistically reliable ratings has been studied in a variety of rating situations, using a variety of scales.^{83, 84, 85}

The effects of repeated observation of the same speaking event on ratings assigned to that event have been studied.⁸⁶ So also has the influence of the observer's overall, or general appraisal of a speaking event on that observer's rating of particular aspects of that speaking event.⁸⁷

Much research has demonstrated the superior reliability of the average rating of several observers, as compared with the reliability of the ratings

assigned by a single observer. The rating a single observer gives to a speech event has little reliability; that is to say, it will ordinarily have a very low order of agreement (correlation) with the ratings assigned the same speaking event by other observers. On the other hand, given a large enough group of judges and pooling all their ratings, the mean rating thus achieved will have very high reliability. That is to say, the mean rating given by a large enough group of judges will agree very closely with the mean rating given by another group of equal size.

The number of observers needed to secure a highly reliable rating for a speaking event varies widely with the sort of event being judged, the sort of scale being used, and the persons serving as observers. Knowler's analysis of speech contest judging indicated that a board of 16 judges would be needed in such situations to achieve a rating with a reliability of .90.⁸⁸ Carp investigated the number of observers needed to achieve a reliability of .94 in making a variety of judgments on speaking performances, and found that as few as one, and as many as thirteen observers would be needed to give reliable scores for the several types of judgments being given.⁸⁹ Gilkinson reported reliability coefficients of .84 and .82 for the averaged ratings on general effectiveness given by four student observers rating speakers whom they could see but not hear. Another board of four judges who could hear, but not see the speakers, achieved a coefficient of reliability of .92.⁹⁰ The wide disparity in the number of observers which have been found necessary to achieve a reliable rating in various situations suggests that in all research using rating scales, study needs to be made of the reliability of the ratings achieved under the specific conditions which pertain to the investigation in question.

The usual procedure for checking the number of observers needed for a reliable rating is that of making random pairings of the ratings given to particular speaking events by a group of observers. These paired scores can then be correlated. Using these coefficients, the Spearman-Brown formula can be used to predict the number of observers needed for the level of reliability deemed necessary for the research which is being conducted. Nelson reports the use of a somewhat different technique, involving analysis of variance for determining the reliability of the pooled ratings given to a speech event by a group of observers.⁹¹

It is demonstrably possible to get a reliable rating of any speaking event simply by using a large enough panel of observers. Another problem in reliability has been less frequently considered in speech research. That is the problem of determining how much of a sample of speech is needed to provide a reliable sample of the total speech capability which is being observed. For example, suppose a five minute speech presented by a student is rated by six observers. The pooled rating thus achieved may be determined to be a reliable rating of this five minute speech. But the fact remains that the five minute speech is only a small sample of the speaking performances of the student being observed. The further question remains

as to whether or not this five minute sample is adequate. Does a reliable rating of this sample constitute a reliable rating of speech abilities of the student in question?

Reflection might suggest that a five minute sample is not an adequate basis for a reliable rating of the "general effectiveness" of the speech of any one person. On the other hand, it might be an adequate sample of the effectiveness of that person's voice. In any event, it is clear that the whole problem of the reliability of a rating involves not only the problem of getting a sufficient number of raters, but also the problem of getting an adequate sample of the sort of speech capability which is being rated. It is possible that studies seeking to measure the results of certain programs of speech instruction have their results attenuated by the inadequacy of the sampling of speech performance which is rated. If such studies reveal trends toward improvement as a result of certain programs of instruction, it is likely that these trends are significant. But it is also possible that differences in the effects of different types of instruction are obscured by inadequate samples. The entire problem of what constitutes an adequate sample of speech in any of a variety of experimental situations has received little study in speech research, and is unquestionably deserving of much more attention.⁹²

By far the most serious problems which accompany the use of rating scale data have to do with the validity of such ratings. We may obtain a reliable rating of a speaking event, but if the meaning of that rating is vague, or obscure, the data provide only a limited amount of knowledge concerning the event being rated. Such vagueness is characteristic of rating scale data. For example, a rating on the "effectiveness" of a speech performance raises an immediate question concerning the meaning of effectiveness. It is possible that a group of observers might rate a speech effective when heard in a speech class, and rate the same speech ineffective when heard at a meeting of a local political club. In the former instance the high rating might reflect an implicit judgment that the speech incorporated many positive features of speech-making which had been emphasized as "good" in the speech class. In the latter case, the low rating might reflect a more basic reaction to the content of the speech in relationship to the prejudices of the audience. Other questions might be raised about the meaning of such a term as "effectiveness". Is a speech which is effective in the sense that the audience "likes" the speech, also effective in conveying information or influencing opinion? All of these kinds of effects are doubtless related in some ways, but the relationship is not an inevitable, one-to-one relationship. Nor is the problem of vagueness solved by using less general terms as the basis for rating than some term such as "effectiveness." Ratings on voice, action, interestingness, etc., are influenced to some degree by the observer's overall reaction to the speaking event. This familiar "halo" effect introduces an inevitable vagueness into the meaning of any rating score which is achieved.

A further problem of meaning may be introduced into the rating score by the situation in which the rating is made. Raters may be influenced by their reactions to "expectations" created by the rating situation, as well as by their observation of the speech act which is being rated. For example, a group of observers rating a speech sample at the beginning of a training period, and rating a similar sample at the end of the training period, might be influenced by their assumption that the speech heard at the end of the training period would be better than that heard at the beginning of the period. This "expectation" would bear upon all observers, and might not affect greatly the reliability of their ratings. It would affect the validity of their ratings in the sense that it would create doubt as to what extent the improved ratings given at the end of the training period represented improved speech performance. Certain speech studies have eliminated the ambiguity here illustrated by taking ratings of a *preserved sample* of speech. Samples of speech taken at the beginning and end of a rating period are recorded. The recordings are then presented to a group of raters in random order so that the raters can usually have no information as to whether or not a particular recording was made at the beginning or end of the training period.

It can be argued that some automatic validity attaches itself to any direct rating of a speaking event. That is, the rating unquestionably is data pertaining to the effect of the event under observation. A reliable rating is thus a significant measure of "something" which is of importance in a speech situation. Nevertheless, the difficulty of determining the exact meaning of the rating may account for the tendency among students of speech to rely less than formerly upon ratings as the sole criterion for appraising speech performance.

The rating scale is still a useful device in studies of audience reaction despite its ambiguity, which can be reduced by careful instructions to observers. Ratings have value for the investigator when he is interested in gross evaluations expressed by listeners: their impressions of a speaker or his speech, or their interest in a play, etc. But the data from ratings cannot be used for any and all purposes in communication research. For example, if an investigator wishes to know how much a speech affects the opinions, or the understanding of listeners, he should use attitude scales, ballots, questionnaire items, retention tests, intelligibility tests, etc., rather than ratings on "convincingness," or "informativeness." Nevertheless the judgments of listeners constitute an important object of study in communication, not only in connection with the aesthetics of the theater, but also in relation to public address. As regards the latter, there are occasions when the main function of the speaker is to be "impressive." When that is the case (e.g. at rallies, ceremonial occasions, and when a speaker on controversial issues stands as a symbol of qualities of strength and confidence in the eyes of his followers) ratings may provide a more important type of data than do opinion scales or retention tests.

10. *The Opinion Meter.* Opinion meters represent the application of a limited electronic technology to the problem of gathering a large number of audience responses to some speech event more efficiently than through the use of rating scales or other measures of audience response. The opinion meters also make it possible to collect a "flow of response" during a speaking event. Although electrical recorders of audience opinion (verbalizable attitude) were developed quite a number of years ago, they have been used very little as research instruments in the field of speech, at least so far as public address is concerned. They have been used in drama, particularly at the State University of Iowa, where several graduate studies in the aesthetics of the theatre have been carried out.⁹³ Two instruments are mentioned in the published report; the Meier Recorder and the Esterline-Angus Recorder. The former is designed to register individual responses, indicated by the observer through the use of a stylus which he moves along a graphic scale.⁹⁴ The Esterline-Angus equipment registers the reactions of groups. Each observer has access to a three-position switch which he can manipulate to indicate whether he likes, dislikes, or is unmoved by the presentation before him. The machine summates these responses in such a way as to yield the percentage of the total group which at a given time indicates "like" and the percentage which indicates "dislike."

11. *Counting Procedures.* Counting procedures have been found to be useful means of securing objective descriptive data, in studies centering upon specific features of speech behavior. Investigations using counting procedures are often described as examples of "content analysis." However, counting procedures have been used to investigate so many different aspects of speech behavior that the label "content analysis" seems an inappropriate classification for all studies sharing this methodology. Investigations using counting procedures usually begin as an effort to observe certain aspects of some speech or language event, to classify these aspects into some category, and to count the number of instances each aspect occurs in a given sample of utterance. Thus an observer using counting procedures might be called upon to count the number of gestures in a speech, or the number of breaks in fluency. Data of this sort were used extensively by Hayworth.⁹⁵ Sanford counted repetitions, hesitations, and contractions, as three of eight "mechanical variables" in spoken language.⁹⁶

Counting procedures have been used to determine certain structural or syntactical characteristics of language. For example, Borchers compared the oral and written styles of selected persons with respect to such features as sentence length, variability of sentence length, frequency of use of personal pronouns, word length, etc.⁹⁷ Similar examples are found in Runion,⁹⁸ Barnard,⁹⁹ and Kaump.¹⁰⁰

The observer may wish to count aspects of a speech act other than those contained in structural or linguistic categories. Thus Bales wished to count

different types of interaction occurring in conferences, and he established twelve categories for classifying each instance of interaction.¹⁰¹

Shepherd used categories to study the content of the newscasts of Henry J. Taylor. He determined the number of references to each of a large list of subjects, the number of such references which were favorable, neutral, or unfavorable; the number of references which were factual or non-factual; and the extent of the use of defined forms of support for each assertion.¹⁰²

If reliable counting is to be done, the categories selected must be mutually exclusive so far as is possible; that is to say, there should be as little chance as possible that a question arise as to which of two categories would apply to a particular act. In some instances the observer may be using categories which have been well established and well defined through extensive use. For example, the analysis of the structural characteristics of the typescript of speeches can be made according to categories for analyzing language which have been established through the work of linguists. In other instances, the establishment of the categories may involve considerable investigation. For example, preliminary observation of discussion groups in action might give rise to the hypothesis that most acts of discussants can be categorized as procedure-regulating acts, problem-solving acts, and climate-building acts. From this hypothesis, the observer might then try to build a definition for each of these three types of behavior by choosing specific illustrations of the types of acts which would be classified in each of these categories. Further observation might reveal ambiguities in the original set of categories. Further definition might then be attempted, or further or different categories established. If a number of acts were found which fell outside any set of categories of interest to the observer in terms of the specific purpose of his research, a residual category might be added—to include all acts other than those which fell into the defined categories. Proceeding on such a trial and error basis, the observer might eventually develop a classification which gave promise of yielding reliable data concerning the speech events to be studied.

The general procedure for computing the statistical reliability of the data collected by counting procedures is that of correlating the totals scored by two or more independent observers counting aspects of the same speech events. For certain types of items very high reliabilities are easily possible; for example, counting the number of verbs and adjectives used per 100 words by a speaker for purposes of determining the verb-adjective quotient. For more complex types of categories, involving an interpretation of the meaning of speech acts, the achievement of a satisfactory reliability may be difficult. An extensive literature describing methods of computing reliabilities is available.^{103, 104, 105, 106}

Successful counting procedure requires not only agreement among observers, but also an adequate sample of the speech event to be observed. This problem has been given consideration in the content analysis of

typescript by dividing the total sample of language into segments of an arbitrary length. It is then possible to compute the number of samples of a given length, randomly selected, necessary to yield data which will correlate highly with the data taken from another total sample of equal size.¹⁰⁷

If the categories used in counting are simple and universally accepted the data derived by their use are valid by definition. That is to say, a counting of the number of verbs and adjectives used per 100 words by a speaker results in data the meaning of which is relatively free from ambiguity (assuming that the terms "verb, adjective and word" are capable of accurate definition). When the problem of validity arises it is usually associated with an attempt to give some abstract designation to particular observed features. The investigator might seek to classify the actions (verbal and non-verbal) of classroom teachers as "dominative" or "integrative", or the actions of discussion leaders as "leader-centered" or "group-centered". In such cases the investigator may look outside his data for evidence to justify his classifications: the judgment of experts, correlation with other established criteria of the trait or quality in question. Or, he may find validation in the way his data behaves when it is employed to test obvious hypotheses.

SUMMARY

This concludes our brief survey of measuring devices and procedures commonly used in speech investigations. Because of space limitations, we have omitted consideration of certain measurement procedures of interest in the study of speech events. An example would be the so-called sociometric measures used in the study of interpersonal preferences.¹⁰⁸ In other instances we have left out or curtailed discussion of interesting applications of some of the general types of measurement included in this chapter. Examples would be the use of certain physiological measures in the study of stage fright, and the use of observational and counting procedures in linguistic analysis.¹⁰⁹

For each device or procedure selected for discussion in this chapter, we have attempted to indicate the nature of the measurement undertaken, and problems involved in its use. We have cited studies showing a range of applications of the device or procedure. In some cases we have emphasized how the investigator met technical problems in measurement, and in some cases how the data "behave." This latter consideration is important in determining the validity (meaning) of the results obtainable from any given procedure for gathering data. If results follow expectations when obvious hypotheses are tested, or if outcomes seem rationally explicable regardless of expectations, then there is good reason for believing that the measuring procedure in question may be useful for a variety of investigative purposes.

When a study is at the planning stage, the investigator may have to choose one or more measuring procedures from among a number of possi-

bilities. In some cases the nature of his study may permit or argue for the use of available standardized tests. Many indexes of personality, and of general intellectual capacity are available, and we have noted the interest of speech investigators in the standard tests of critical thinking, and listening ability. Such "established" tests have many advantages. Data are usually available concerning the reliability and validity of the test, and these are matters of central importance in measurement. The test may have been used in other studies, giving clues as to the way in which the data it furnishes "behaves." The availability of the test to many investigators may result in cumulative research in which a variety of related hypotheses are tested, with the result that knowledge becomes additive. Of course it is apparent that these attractions alone do not justify a preference for established tests.

In many instances the investigator will need to develop his own measuring devices or procedures, and to subject these devices or procedures to the usual questions concerning reliability and validity. Retention tests are ordinarily developed by the investigator; attitude scales, rating scales, counting procedures, articulation tests, intelligibility tests, and "semantic differentials" must often be developed by the investigator, although it is apparent that in the instance of such devices either the material for their development, or the logic by which they are developed is readily available.

Regardless of the measuring device or procedure employed, the investigator is likely to find himself confronted with one or more problems entailed by the nature of that device or procedure. Can data from an ordinal attitude scale be treated as though the scale measured attitude strength in equal intervals? Is critical thinking ability anything more than a label for certain verbal skills selected by some test? When a member of an audience is aware of his role as a rater, does this awareness affect his perception of the event or his representation of his response? Is it plausible to rate the complex events in an act of speaking along a continuum, or do we distort the nature of the act by assuming that it is distributed along some single dimension?

The list of questions could be enormously extended, and it suggests why a very large number of studies in speech have been concerned primarily with the problem of measurement itself, rather than with any curiosity about speech events independent of the question of the measuring procedures to be used. Indeed it could be argued that at the present time the most pressing problems facing the investigator interested in the scientific study of speech have to do with the development of measurement theory and practice.

NOTES

1. E. F. Lindquist, *Educational Measurement*, (Washington, D.C., 1951), p. 534.

2. Sidney Siegel, *Nonparametric Statistics for the Behavioral Sciences*, (New York, 1956), pp. 21-34. Siegel presents a clear description of the levels of measurement discussed here, together with a description of the statistical operations permissible for each.
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4. Leon Festinger, and Daniel Katz, editors, *Research Methods in the Behavioral Sciences*, (New York, 1953).
5. E. F. Lindquist, editor, *Educational Measurement*, (Washington, D.C., 1951).
6. Published by Stoelting Company, Chicago.
7. Franklin H. Knowler, "A Study of Speech Attitudes and Adjustments," *Speech Monographs*, V (1938), 130-203.
8. We refer to the Spearman-Brown prophecy formula, a discussion of which may be found in any standard text book on statistics in education or psychology.
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10. Milton Dickens, Francis Gibson, and Caleb Prall, "An Experimental Study of the Overt Manifestations of Stage Fright," *Speech Monographs*, XVII (1950), 37-47.
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14. Roy C. Nelson, "An Experimental Study of Four Methods of Teaching Beginning Speech in College," Ph.D. Thesis, University of Minnesota, 1954.
15. Francis E. Drake, "A Study of the Personality Traits of Students Interested in Acting," *Speech Monographs*, XVII (1950), 123-133.
16. Stanley F. Paulson, "Changes in Confidence During a Period of Speech Training," *Speech Monographs*, XVIII (1951), 260-265. Students of research methods should note in this study the demonstration of the effects inter-correlation of criteria upon the outcomes of statistical analysis.
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19. Howard Gilkinson, and Franklin Knowler, "A Study of Standardized Personality Tests and Skill in Speech," *Journal of Educational Psychology*, XXXII (1941), 161-175.
20. Clyde Dow, "Intelligence and Ability in Public Performance," *The Quarterly Journal of Speech*, XXVII (1941), 110-114.
21. *Watson-Glaser Critical Thinking Appraisal*, Published by World Book Company, (Yonkers-on-Hudson and Chicago, 1952).
22. Goodwin Watson, and Edward M. Glaser, *Watson-Glaser Critical Thinking Appraisal Manual*, (Yonkers-on-Hudson and Chicago, 1952).
23. William S. Howell, "The Effects of High School Debating on Critical Thinking Ability," *Speech Monographs*, X (1943), 96-103.
24. Winston Brembeck, "The Effects of a Course in Argumentation on Critical Thinking Ability," *Speech Monographs*, XXVI (1949), 177-189.
25. Alma Johnson, "An Experimental Study in the Analysis and Measurement of Reflective Thinking," *Speech Monographs*, X (1943), 83-96.

26. Quinn McNemar, "Opinion-Attitude Methodology," *Psychological Bulletin*, 43 (1946), 289-369.
27. Charles Bird, *Social Psychology*, (New York, 1940), p. 163.
28. Franklin H. Knowler, "Experimental Studies of Changes in Attitudes: I. A Study of the Effect of Oral Argument on Changes of Attitude," *The Journal of Social Psychology*, VI (1935), 315-347.
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30. This objection obviously does not apply if the investigator can choose a scale from among those already constructed, or if a number of experiments are run using the same scale.
31. H. H. Remmers, "Generalized Attitude Scale—Studies in Social-Psychological Measurement," *Bulletin of Purdue University*, 35, *Studies in Higher Education*, XXVI (1934).
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38. W. A. D. Millson, "Measurement of Speech Values," *The Quarterly Journal of Speech*, XXII (1936), 544-553.
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Mass Communications Research in Radio, Television and Film

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HISTORY OF MASS COMMUNICATION RESEARCH

Research in the mass communication media—radio, television, film, and mass-produced and -distributed printed material—has produced in a brief span of time a considerable body of knowledge concerning one of the major intellectual preoccupations of the twentieth century; communication. In 1930, the student of the mass media did not exist; the possibility of drawing together studies in radio, films, newspapers, and the like, was not seen until considerably later.¹ A curious person might have discovered, in that year, some few efforts to describe the content of radio and the press, and some speculations and even simple experiments designed to determine whether radio functioned differently from the stage and the lecture platform.² President Hoover's Commission, who were to publish the monumental *Recent Social Trends* somewhat later, were no doubt occupied in drawing up their enormous lists of the putative "social effects" of radio broadcasting.³ Aside from such efforts as these, the press, radio and film were outside the sphere of interest of the scholar.

The reasons for this late development of mass media studies are clear. For one thing, the study of "communication" itself is recent, dating back roughly only to the early years of this century. For another, the three media in which we shall here be chiefly interested—radio, television, and film—are new to human experience. Motion pictures became a significant, functioning means of communication in the United States in the early years of this century; radio, although it had existed as wireless telegraphy from 1895, did not become in any sense a mass medium until the early 20's; and of course, television goes back scarcely a dozen years.⁴ Thus, the research data of mass media students really developed along with the techniques which were to be used to study it.

Public Opinion and Propaganda Studies. In some respects, we can say that mass media research in the United States has certain prototypes

in the propaganda and public opinion studies which appeared following World War I. During that war, Clausewitz' maxim, "War is the extension of policy by other means", had in a sense been reversed, so that the chief instrument of policy, propaganda, had for the first time in human history obviously become an instrument of warfare. Scholars and journalists, who had certainly been observers and sometimes practitioners of propaganda techniques during the war, now came to the realization that control over public opinion was of profound concern to all modern governments, and to the belief that control could best be exercised through the press, the principal mass medium then available. Consequently, they wanted to know certain things—what devices and techniques might be employed to influence public opinion, and what, if any, defenses the individual might make against them. The pioneering work of such men as Lippmann and Doob⁵ exemplifies what is best in this work, which was generally descriptive and speculative in method, and nearly always phrased in terms of "propaganda".

In one respect, this description of the very complex problems of the press, and ultimately, of the mass media as a whole, was not adequate. It limited mass communications research, by and large, to the study of political communications; and the use of the term "propaganda" tended to be judgmental—"propaganda" was normally seen, despite various efforts to eliminate the unfavorable connotations of the term, as a "bad" thing. The final result of these handicaps may be seen in the work of the Institute for Propaganda Analysis,⁶ which seemed to view all efforts at influencing the attitudes and behavior of others as "propaganda", and hence, evil; and to reduce the communicative process to a handful of tricks—"card-stacking", "glittering generalities", "bandwagon", and so forth—used solely by malignant persons in evil causes.

However, the tradition of "propaganda" and "public opinion" studies produced some extremely useful data and conclusions: some excellent analyses of the process of opinion formation, and a concern with the content of messages which led eventually to the development of content analysis.

Early Research in Radio and Film. The earliest efforts at research in radio broadcasting date from the late 20's and early 30's. This research divides into two very different types: commercial research, and academic. Commercial research seems to have developed chiefly out of economic necessity.⁷ It was not until the development of radio networks (1927-1934) that American radio really went commercial; the expense of network operations and increasing program costs made the subsidy of broadcasting by set manufacturers, newspapers, private persons with a "cause" to promote, and so on, impractical. In selling advertising time on the air, broadcasters were regarded as delivering so many listeners at a given time to a given commercial. But of course, in the very nature of radio, no one could tell how many persons—or if any persons—were listening. Estimates from mail were not convincing enough. Consequently, the

Crossley audience surveys, first appearing in 1929, provided a means of demonstrating, to station and network operators and their clients, more or less convincingly, and probably more or less accurately as well, how many ears actually were being titillated by the Cliquot Club Eskimos. The idea was commercially successful, and the Crossley and Hooper ratings, together with most of the other rating services which followed, continued to report what proportion of the available audience was tuned to a given program at a given time.

Probably the first academic study of broadcasting was Katherine Elizabeth Shank's "A Study of the Relations of Certain Types of Voices to Successful Radio Broadcasting", which was accepted as an M.A. thesis at the University of California in 1929. This study was followed by others, but by very few, throughout the thirties.⁸ While these studies were not ill-conceived, considering the period in which they were done, they were certainly isolated as research, so that no body of information ever really developed from them. Perhaps the most useful stratagems developed in several of these early studies were designed to "place" radio as a means of communication; they deal with the psychological differences between response to a platform address and to the same address heard by radio or loudspeaker; or they concern themselves with differences in dramatic statement between radio and the theatre. Unfortunately, these efforts to get at the characteristics of the new medium were not pursued very far; and the result is that almost everything we know about radio or television as special languages is speculative rather than demonstrable knowledge.

Perhaps the first generally significant attempt at a study of radio was the body of material contained in the Cantril and Allport *Psychology of Radio*.⁹ At this point, the phenomenon of radio broadcasting was taken over as a segment of the field of social psychology, a formulation which produced fruitful results in such works as Cantril's *Invasion from Mars*,¹⁰ and Merton's *Mass Persuasion*.¹¹ Newly developed techniques of opinion sampling seemed to offer the possibility of making valid statements about the reactions of an enormous mass audience from a study of relatively few cases; methods of interviewing were being developed in many fields; and content analysis appeared to present, for the first time in a tradition dating back to Plato, an objective, quantified method for assessing the content of a communication.

In general, techniques which were originally devised to apply to radio and the printed word have since been extended to television and film, with considerable success. In addition, film has developed its own rich literature of criticism, speculation and philosophy—beginning with such brilliant pioneering work as Arnheim's *Film als Kunst*¹² and Spottiswoode's *A Grammar of the Film*¹³ and continuing through the studies of such men as Siegfried Kracauer¹⁴ to the solid psychological analysis of Wolfenstein and Leites.¹⁵

The Present and Future of Mass Media Research. The present and

future of mass media research may be deduced from the following propositions. The mass media will undoubtedly continue to provide the principal structures in our communications system; they are now vital to our economy, through advertising; to our political system, since there seems no other means of non-violent social control, or of stimulating and transmitting political decisions, so effective as they; to our military and quasi-diplomatic operations, since we have long since learned that battles can be won—and, sometimes, avoided—by means of an effective and far-reaching communications network. Certainly the mass media will not, barring a complete disruption of modern life in, say, a nuclear war, decrease in importance.

At the same time, as the techniques and machinery of mass communications have become more complex and more essential to the functioning of social groups of all kinds, they also have become more expensive in terms of money, material, time and human energy. Few organizations, up to and including government, can enter lightly upon a program of communication via the mass media; the costs are so great that the results must be, as far as possible, predictable. This is, of course, the point at which the communications scholar and researcher becomes indispensable. Moreover, as the mass media grow more pervasive of our society, they also become an increasingly troublesome object of concern to scholars and philosophers. The problems of social responsibility among communicators, the actual themes stressed in the mass media, the uses to which consumers put these themes, the ethics of mass persuasion—these, and other allied problems, will surely occupy the attention of some of our best minds for a long time to come.

METHODS AND PURPOSES OF RESEARCH IN RADIO, TELEVISION AND FILM

To justify research in mass communications, or in the individual media, we need to be able to fit our limited studies into a larger intellectual framework, in order to provide them with the greatest possible significance and the most useful sort of direction.

Perhaps the most appropriate, and certainly the broadest formulation available to the student of mass communications, is that of “communications-in-general.” This body of theory, to which specific studies could and should be related, would then deal with the symbolic activities of human beings (as formulated in semantics, mathematical sociology, metalinguistics, semiotic, etc.), together with analogous activities in animals (the “animal psychology” studies of Köhler and others), and in machines (information theory).

All this may seem an intolerable burden of learning for the mass media student to carry through life; and perhaps we should add that no one, obviously, is likely to become expert in the many fields of specialization

which are nowadays involved in the study of "communication". Nevertheless, a general familiarity with the concepts and techniques involved in this field seems essential.

The Nature of Communications Research. The concept of communications research and theory is one which has appeared in comparatively recent years. The concept already appears to be exceedingly fruitful, for two reasons: the vast area involved in "communication" (and the even greater one involved in "information transfer") permit the development of very abstract general hypotheses, some of which have been mathematically stated; and at the same time, very specific and detailed studies may be made so that they relate to the general theories. This would seem to be the sort of structuring which has permitted such fruitful work in the physical sciences.

Studies of various special aspects of communication have been made long before the present century; indeed, the history of grammar, rhetoric, and dramatic and literary criticism go back to Aristotle, and even earlier. However, these studies seem to proceed on rather different assumptions from those underlying most modern communication research: the grammarian studies the structure of language as a phenomenon interesting in itself, and therefore worth research; the rhetorician studies the speech process either for this reason, or because he wishes to improve the speaker's ability to persuade, or the listener's ability to withstand persuasion. But the present day student of communication, in contrast, examines the symbolic activities of human beings because he finds them a useful index to a study of general human problems, both individual and social. The commonplace of the modern social anthropologist is that language is the index to culture. If you want to find out about the structure of a society, you must begin by learning what people in it say to each other, what their jokes and rituals are, what their songs and dances and graphic arts are about. Sigmund Freud anticipated the anthropologists in this insight, as he seems to have anticipated nearly everyone else; his system of psychoanalysis is based on the double assumption that the diagnosis of a psychological upset, as well as its treatment, must proceed through the patient's ability to talk about himself, his experience, his problems. So thoroughly has this notion been carried into contemporary psychiatry that psychologists like Jurgen Ruesch¹⁶ and Rogers¹⁷ can define the human individual as a communication system existing within the vaster system of society; can diagnose a breakdown as a case of "disturbed communication", and a successful treatment as a successful effort to restore adequate communication both within the patient and between the patient and others.

This remarkably valuable concept of symbolic behavior as diagnostic material, as index—and conversely, as therapy, or as means of manipulating or altering individual lives or society—is certainly reflected in the social anthropology of Frazer, Boas and Malinowski, in the economics of Veblen and the sociology of Riesman. It possibly accounts as well for the develop-

ment of such disciplines as the general semantics of Korzybski and the metalinguistics of Sapir, Whorf, Trager and others.

The Contribution of Mass Media Research. To the study of “communication”, mass media research has already made valuable contributions and is clearly capable of making many others. “Mass communications” is a descriptive term which, in its broadest significance, refers to any situation having the following characteristics:

1. The message is devised by a cooperative effort of various creative persons and technicians;
2. The message is then transmitted by various mechanical and/or electronic means and is received by various individuals not physically or psychologically constituting a single audience;
3. The communication situation is generally characterized by anonymity and lack of any immediate response by the receivers to the senders.¹⁸

In effect, the mass media represent human symbolic activity of all kinds, put on a basis of mass production and mass distribution.

Thus, a radio or television program is always a cooperative effort, and can rarely be said to be the creative product of a single person; it is received by a fragmented audience, and separated from the origination point in time, or space, or both. Moreover, the individuals who prepare the program have as little detailed knowledge of their audiences as the audience has of them; and of course, immediate, continuing response to their efforts—in present-day jargon, “feedback”—is wholly lacking.

Film is commonly brought under the rubric of mass communication for various reasons: like the other mass media, film is a product of technology and requires rather elaborate equipment and complex technical skills to produce; consequently, films share in the “anonymity” and “team-play” characteristics of the other media; and above all, theatrical film has almost universally, and documentary and instructional film have to some extent, been considered by their makers, critics, and audiences to be a form of mass entertainment, mass instruction, mass propaganda.

Film, of course, has one distinguishing—though perhaps only an attributed—characteristic which differentiates it from the other mass media; it is sometimes regarded as a vehicle for fine, or elite, art. The reasons for this choice of category are historically rather complex, but they may be summarized thus. From the early years of the century on, film has been used by various film-makers—the Griffiths, Eisensteins, Von Stroheims, Langs, and so on—to some extent as a vehicle for personal artistic expression. This attitude continues today in the efforts of various non-commercial, “experimental” film-makers, as well as in the more-or-less successful efforts of a number of American and European producers and directors of films. By the same token, throughout much of the history of film, a sizeable number of critics and students of the medium have been willing to regard film as at least potentially and sometimes in actuality a medium for more than popular entertainment. The result has been a

literature of film criticism and research which derives from the tradition of art and literary history and criticism, rather than the social sciences. Thus, the study of film as an art medium offers another, quite fascinating area to the student.

The classic formula for the study of mass communications was devised by Harold Lasswell: *Who says what to whom by what medium with what effect?* This is to say that the researcher may concentrate on the various individuals, policies, stresses which account for the message (the *who*), the content or style of the message (the *what*), the composition of the audience, or audiences, which received it (the *whom*), the biases of the communications system through which the message was sent (the *medium*), and the immediate or remote impact of the message on individuals or groups (the *effect*). This formula, with some modifications (e.g., the "effect" of communications has proved extremely difficult and unsatisfactory to assess), remains in more or less general use at the present time, and may be employed to block out certain areas of research in the mass media.

However a somewhat different accounting of the possibilities of mass media research is possible.¹⁹ Originally such research was based on an assumption of media potency; that is, the belief that messages transmitted via radio, the press, or film, were very nearly certain to reach their selected targets and achieve their predicted results, and all this in a simple linear fashion. Thus, the messages of a Hitler were conveyed directly, via film or radio, to a listener, and produced a direct, more or less predictable, impact on him. Research was then supposed to discover precisely how this process worked. Research in mass communications thus became a study of short-term *campaigns*: efforts to persuade people to buy a certain product or to vote a certain ticket; efforts to change the attitudes of prejudiced persons; efforts at political or social education. This kind of "campaign" research produced a number of interesting conclusions, most of which have indicated that communication via the mass media is neither simple nor linear.

A principle of "selective attention" was derived from some of these studies: the observation that media consumers cannot attend to all the messages which are directed to them, and consequently are likely to select those messages with which they already agree, and to tune out those with which they disagree. The Democrat in politics listens to Democratic campaign speeches; the man who detests Negroes refuses to listen to Brotherhood Week programs, and so on.²⁰ Clearly, such findings as these greatly weaken our notion of the potency of the media, since they suggest that some sort of predisposition on the part of the audience must exist before a message can become effective. Barnouw states an interesting variation on this theme by distinguishing between the "focussed" and "unfocussed" listener-viewer; the focussed person, he suggests, has specific interests to which the media must cater, or he ignores their efforts; the unfocussed

person, in effect, is shopping around for messages which he can use.²¹ A focussed individual, for instance, might choose to spend his time reading a journal on stamp-collecting rather than watch a spectacular on television, if he is interested in stamp-collecting; the unfocussed person would probably, in the same situation, watch the spectacular, trying more or less effectively to discover in it something useful to him.

From the "campaign" studies, too, has come much material to demonstrate the curious effect of the functional, as opposed to structural, factors in perception:²² people listening to a radio program, reading a newspaper, watching a film, not only search for the symbols that are meaningful and useful to them, but transform these symbols in terms of what they expect, or want, or perhaps even what they fear to see. And these transformations sometimes take place without much reference to what the communicator wished to say.

Still other lines of research have contributed to our image of the complexities of communication. Originally, as we have noted, students of mass communications supposed their effect to be direct and linear; the advertiser puts a commercial on radio, a listener hears it, and is thereby moved to buy the product. Recent research, however, strongly suggests that changes in attitude or preference—whether directed toward an item of consumer goods, or a political party, or something else—tend to result from human contacts rather than any direct influence of the media.²³ This is to say that perhaps many of our decisions—as opposed to habitual and routine acts—are shaped by persons whom sociologists call "opinion leaders" or "influentials". These people may be friends, relatives, job associates, neighbors, for whose judgment and opinions we have particular respect. Thus, a woman may be influenced in her political attitudes by her husband, or in her choice of home decor by her next-door neighbor; while she herself may be extremely influential among a group of her friends in choice of clothing.

Katz and Lazarsfeld describe this process as a "two-step flow" in communication: ". . . the hypothesis suggests that ideas often flow *from* radio and print *to* the opinion leaders and *from* them to the less active sections of the population."²⁴

In short, "campaign" research has given us, and will no doubt continue to give us, a useful view of the extreme complexity and obliquity of the process of communication through the mass media. It has also suggested the extreme naivete of the earlier concern with the "effects" of the media: The very label of "effect" or "impact" study suggests a simple, linear, cause-effect pattern where no such phenomenon, apparently, exists.

At the present time, perhaps the most valuable formulation for mass media research is that of the "uses and gratifications" study. This is basically a study conducted by rather elaborate interviewing techniques which attempts to raise, with a listener, viewer, or reader, such questions as "How did you use the material to which you were exposed?" "What satis-

faction did you get from the experience?" The probability is that such studies will yield a great deal of useful data on the practical functioning of the communication process.

There is still another area of mass media research, which has so far hardly been developed: the long-term assessment of the integration of the media into the lives of individuals and into society. This has been a subject for much speculation among philosophers and critics, ranging from George Orwell and Aldous Huxley to Dwight MacDonald; however, these speculations have not to date been reduced to a form in which they are amenable to objective research. In all probability, such research—when it develops—will be, at least initially, historical and critical.

RESEARCH PROBLEMS IN RADIO-TELEVISION-FILM

If we make use of the formulations discussed above to find research problems in this area, the following possibilities, among many others, suggest themselves.

Studies of Communicators, Their Performance, Their Motives, and the Concepts Which They Develop. A variety of techniques may be used to develop studies in this area. For example, although many historical studies dealing with various aspects of broadcasting and film have been done, many more are needed. Such studies may deal with organizations involved in broadcasting or film production (the Voice of America, the Columbia Broadcasting System, the government of the U.S.S.R.),²⁵ with persons who have successfully exploited the media (Franklin D. Roosevelt, David Wark Griffith, H. V. Kaltenborn, Adolf Hitler),²⁶ or with concepts which have affected the performances of communicators (the BBC concept of the pyramidal audience structure, the concept of freedom of the press as applied to radio and television).²⁷ Extremely valuable studies of organizations affecting the content and style of messages (the National Association of Broadcasters, the Legion of Decency, the various trade unions involved in communications industries);²⁸ of critics of the media (James Agee, John Crosby, Bosley Crowther);²⁹ or of the totality of pressures which account for a given film or television program³⁰—all of these types have been successfully developed, and await the student's attention.

However, the historical method (or journalistic, in the case of contemporary work) is by no means the only approach to the study of communicators. Frequently, where a body of literature is available (for instance, the many statements of network executives on the status and public responsibilities of radio and television), content analysis may be used to anatomize the motives behind broadcasting and film-making. Again, some empirical studies have been done of the decisions which help to account for a particular message, or cluster of messages; for the most part, those done to date have concerned news editing for the daily press,³¹ but there is no reason why similar studies should not be worked out for the other media.

Studies of the Content of Communications. We have already noticed how a concern with the formation of public opinion through propaganda or other means has led to an interest in the content and techniques of mass media statement. This interest has considerably broadened in recent years, to encompass not only problems relating to public opinion, but also problems of public knowledge and belief. Thus, while studies of press, radio and film treatment of such matters as the Suez crisis, or the death of Stalin, or the image of Krushchev would be in the older tradition, the student might also think of such issues as the portrait of primitive peoples conveyed by American films, or the changing images of Fidel Castro, or the understanding of history purveyed through film, radio and television. Indeed, the possibilities of content study are nearly endless, depending chiefly on whether the student can make available to himself a body of texts—films, kinescopes, tapes, transcriptions, scripts—for analysis.

To attack such materials, a wide range of techniques is now available. Perhaps best known to social scientists are the methods of quantitative content analysis as devised by Harold Lasswell and others, and as elaborated by Bernard Berelson in his *Content Analysis in Communication Research*.³² These methods offer the student a systematic, quantified technique for analyzing the content of communications—a great step forward in the scientizing of mass media research.

In addition, we have the techniques and devices which Berelson classifies as “qualitative” methods, meaning that they involve a somewhat less systematic study of the message, and depend to a greater extent on the analyst’s subjective perceptions of content significance. Within this group, we might list the techniques employed by many distinguished modern critics of literature, drama and the popular arts—such men as Burke, Empson, Richards, Lowenthal, MacDonald, Hayakawa—as well as those used by contemporary rhetorical critics.

Studies of Audience Composition and Habits. Researches of this kind have generally employed the techniques of sampling and interviewing; for instance, the operations of public opinion pollers, and of “audience research” organizations such as Neilsen, Trendex, and Sindlinger, are examples. Audience research studies on a large scale are not usually practical for graduate students, since they normally require the services of a number of interviewers, coders, and the like.

However, a departmentally-sponsored project of this sort may be quite possible, and may supply data for theses and dissertations to students within the department. Moreover, it is sometimes possible to set up limited studies of audience composition; these can be planned and executed by qualified graduate students with some faculty supervision.

Studies of the Media. One of the neglected aspects of mass media research is what might be called the study of media bias. This sort of study, in its most sophisticated form, presupposes that the student regard radio, for example, as a special language with its own grammar, vocabulary and

rhetoric. The medium of radio might then be studied as if it were a language, like Kwakiutl or Swahili, and the student a linguist.

We have seen that some of the very early academic studies of radio dealt generally with the nature of the medium, and involved comparisons between radio and theatre, radio and the platform, and so on. Later studies have examined such issues as the changes made in content and style of statement when a novel is translated into film, or a motion picture becomes a television series. For the most part, these studies seem to have been isolated, and have not developed into a very promising line of research. Perhaps they should be reconsidered, and new studies based on their findings.

Apparently, however, the most interesting present day investigations of media bias have been reported by Marshall McLuhan and his colleagues at the University of Toronto. These studies, reported in a series of publications called *Explorations*, involve elaborate stylistic analyses of the mass media, focussing on the techniques and forms which seem appropriate to each medium.³³

Uses and Gratifications Studies. As noted before, early studies of the "impact" of the mass media have proved to be rather disappointing. At the present time, a considerable number of "uses and gratifications" studies have been made, which raise such questions as "Why, out of the stream of symbols provided by the mass media, do people make the selections they do?" and "How are these symbols interpreted in terms of personal needs and motives?" Among the best examples of studies of this sort are Robert Merton's *Mass Persuasion*, and Katz and Lazarsfeld, *Personal Influence*.³⁴

Long-range Effect Studies. Almost nothing has been done to assess the nature and extent of long-term mass media interaction with other phases of the culture. Certainly the most useful and interesting suggestions for studies of this sort have been made in connection with the printed media, which have the advantage of a five hundred year history to work on. For instance, Ong's paper, "The Uses of Grammar",³⁵ indicates very clearly that the printed work, the printed page, and the bound book came, from Guttenberg's day on, to serve as a kind of intellectual model for communications of all sorts in European society: thus, the model of spoken eloquence has been the written word; such grammatical features as words, phrases, sentences are derived from the printed language rather than the spoken; at meetings of learned societies scholars do not talk, they "read papers", and so on. Ong suggests that we are now midway in a transition from a "book culture" to an "electronic culture", in which our whole concept of communication is changing radically. If his hypothesis is correct, then surely the way is clear for students of radio, television and film, to study the nature and extent of the change.

MASS MEDIA RESEARCH: OPPORTUNITIES AND LIMITATIONS

The foregoing notes should make abundantly clear the interest and value of the whole field of mass media research. At this point, however, a caveat should be entered for the benefit of the individual graduate student.

First, he will note that many of the “classic” studies in this field are “team” studies, of necessity. Interviewing and opinion polling require a considerable amount of time; and yet, in the nature of many interview studies (*Mass Persuasion*, *The Invasion from Mars*, *Radio Listening in America*, for example), data must be gathered in as brief a space as possible. Add to this fact the additional costs in money and equipment necessary to such studies, and it is easy to see that they are not normally available to graduate students as course projects, master’s theses, or doctoral dissertations. This does not mean, of course, that “team” studies of modest scope cannot be designed and carried out successfully, granted a certain amount of ingenuity. A number of students may, of course, work on a single project; and, often enough, local broadcasting stations, film production organizations, and so on, are willing to supply enough money to pay minimum expenses on projects of some value to them.

However, the graduate student will usually find that three types of study are best suited to his needs: the historical study, several examples of which have already been cited; various types of small-scale interview and questionnaire studies; and the study of content, which deals with relatively stable, permanent data which may be examined and re-examined over a long period of time.

Second, the study of mass communications is by no means yet a science, or even particularly “scientific”. Indeed, this may be said of the study of communication as a whole. Typically, in the early stages of development of any field of study, the observer and collector—the data-stuffers, as they are sometimes called—are the first investigators, and their techniques are “humanistic” rather than “scientific”. Thus, we may expect the study of mass communications to begin—as indeed, it has begun—with speculation, criticism, “mass observation”, qualitative analysis, persistent inquiry, the writing of history. Eventually, after enough data have accumulated, we may expect the classifier, the Linnaeus of mass behavior; and ultimately, the theorist and experimenter.

What stage has the study of mass communications so far reached? The answer surely is: all of them. The bias of the social sciences in the United States is to imitate the physical sciences: to put great stress on the usefulness of quantification and experimentation. The wisdom of this bias has sometimes been questioned; but the fact of its existence remains. The result is that, long before the possibilities of observation and speculation have been exhausted, and almost skipping the problems of data classification, mass communications researchers have leaped to the stage of theory and

experiment. Consequently, there is a tendency in this field to underrate the usefulness of further research at the earlier stages; where this tendency exists, it is in error.

The values of quantified study and experiment are, at this date, certainly plain enough; it is impossible, in an intellectual endeavor, to avoid the implications of such studies as quantum mechanics, nuclear physics and the mathematics of probability. The limitations of such methods, where they are transplanted to the behavioral sciences, are not so obvious; the restriction of study to phenomena which can be counted or measured, coupled with the ignoring of vast and obviously important areas which to date can only be studied subjectively and qualitatively.

Certainly it is true that every effort must be made to bridge from the "humanistic" bias of observers, critics, speculators and the like, to the "scientific" bias of the experimenters; but in the meantime, it is of prime importance to continue the "humanistic" studies, to make full use of the resources of philosophy and history and criticism.

CONTENT AND INTERVIEWING STUDIES IN MASS MEDIA RESEARCH

Content analysis, under a variety of different names, has been part of the Western tradition of scholarship since ancient times. Plato, in the *Gorgias* and the *Phaedrus*, discusses speech content with great sophistication; part of Aristotle's *Rhetoric* is devoted to a discussion of the common themes of orators. In a slightly different, but related, tradition, literary scholars and critics have for centuries studied closely the content of poems, novels, plays, and the like. However, it is probably not too much to say that this analysis has been, in the main, non-systematic—that is, it represents the subjective impressions and insights of the analyst; and that it has been qualitative rather than quantitative.

The differences in result between qualitative and quantitative analysis, in general are these. Qualitative analysis produces brilliant insights, enormously valuable glimpses of the significance of symbols, but its value depends upon the genius, experience and training of the analyst. Quantitative analysis produces, as a rule, less startling results, but requires no extraordinary talent or training on the part of the analyst, and—since it is quantified—can be readily verified by other observers.³⁶

Thus, one of the early quantitative studies, performed by Graves and Lasswell during World War II, was acceptable as expert testimony in a Federal court. The problem was to discover whether or not certain American magazines were directly following the Nazi propaganda line. The method of study was this: German short-wave broadcasts directed toward North America were monitored, and their content studied. This study produced a list of "themes", or more properly, categories of themes, which was taken to represent the Nazi propaganda effort so far as the United States was concerned at that time. Then the magazines in question were

similarly studied, and their content classified according to the same list of themes. The problem was then largely one of counting. Several publications were found to contain themes classifiable along these lines; but in nearly all cases, it was found that while some thematic statements agreed with the Nazi list, many others contradicted it. In one publication there was clear evidence: over a period of three months, over 1,000 themes agreed with the Nazi lines, while only 45 contradicted it. It seems highly improbable that any critics' "impression" of the editorial policies of magazines would be taken as testimony in court; but this quantitative analysis was so taken.³⁷

Certain practical problems are involved in doing a quantitative content analysis:

1. The student must gain access to a body of homogeneous and significant texts, a necessity which offers, as a rule, some problems to the student of radio-television-film. Films are at least potentially available; but the difficulty is to get a significant group of them for close and even prolonged study. Television and radio programs can, to some degree, be studied on the air; but this procedure is rarely satisfactory. Kinescopes and transcriptions are, unhappily, ephemeral; it is indeed unfortunate that no library of transcriptions, kinescopes, films and tapes has ever been established for the benefit of students of the mass media.

In much the same way, scripts of broadcast programs—though many are available in print—are sadly lacking in the quantity and type needed for content study.

2. Suitable hypotheses must be devised before the study can be planned. While hypotheses, theoretically speaking, should always precede design, this is a particular problem with content analyses. Suppose that a student has access to a group of kinescopes or scripts of a series of mystery stories—*77 Sunset Strip*, for example. How is he to analyze them, and what kinds of conclusions is he to draw from the analyses? A series of plays might be meaningfully analyzed in half-a-dozen ways: one might be interested in the socio-economic classes of the characters, or in the nature of their motives, or in the social or political values expressed in the plays; one might also be interested in the composition of the author's vocabulary, or in his syntax; one might even examine the kinds of logic by which the mysteries were solved.

One *might* be interested in any of these possibilities—but always for a reason, which would be phrased as an hypothesis. Why bother to make a systematic analysis of *77 Sunset Strip*, or the documentary programs of Edward R. Murrow, or the films of Ingmar Bergman? Because one suspects that there is a kind of mystery in these works, a concealed explanation which, if discovered, would make clear why they are what they are, or why they do what they do. The statement of this suspicion is at once the hypothesis which directs the course of the analysis, and the reason why the analysis seems worth making at all.

There are several ways in which the problems of hypotheses may be

approached: we may assume that the study of content is, in a sense, intrinsically meaningful; in some cases, we assume that it will tell us something significant about the producer of the message; in other cases, that it will tell us something about the audience for the message. Let us look in some detail at these three approaches.

a. Content is intrinsically meaningful. The analysis of communication content may be used to reveal trends, or tendencies, of various kinds over a period of time. For instance, a scholar interested in speech research might make a content study of such materials as reported in theses, dissertations, professional journals and the like. His hypotheses might be developed along some of the following lines: speech research, over a period of forty years, has become less speculative and more empirical; it draws more frequently on research done in non-speech areas; its topics cover a greater range. If these hypotheses were verified, the researcher *might* go on to draw certain inferences about the field of speech, its status in academic life, its personnel; but these inferences would hardly be necessary to justify the study.

In the same way, studies of content may be made to show long- or short-range trends in the treatment of various themes; a projected study at Northwestern University, for example, will examine mass media treatment, over a period of years, of such topics as intelligence, genius, and unusual talent in children and adults. Some of the preliminary hypotheses in this study will be: that the popular media have shown extreme distrust of any sort of unusual intelligence or talent, and have developed images designed to ridicule and trivialize it; and that, conversely, they have tended to stress the importance and social desirability of such adaptive techniques as are thought to be commonplace rather than unusual—"horse sense", for instance. In all probability, such a study should prove meaningful simply as a history of popular American attitudes on topics of some importance to our society.

b. Content as an index to communicators. We may reasonably assume, in many cases, that a piece of writing, a film, a television program, or any other example of creative effort, is in some sense a personal statement, an expression of the artist's beliefs, values, neuroses, and so on. This would be true wherever a writer, director or producer has fairly complete control of the finished work. For example, the films of David Wark Griffith or the radio plays of Norman Corwin might be studied in this way.

However, the peculiar nature and traditions of the mass media, especially in the United States, usually offer the student a far more complex situation. Most television and radio programs, most films, are the product of co-operative effort, and of a combination of pressures of all kinds, and cannot be said to be within the control of any individual. But even in these cases, certain inferences concerning the motives and intentions of communicators may profitably be drawn from content analysis. For instance, during World War II, a BBC research team undertook the task of predicting the

plans of the German High Command from a study of Nazi broadcasts. This team was, for example, correct in predicting the German invasion of Norway.³⁸

c. Content as an index to audiences. Here the assumption is not that audiences have created the content, or demanded it (compare the mass communicator's common, and extremely dubious, self-defense, "We only give the people what they want"), but rather that mass media statements are *intended* to attract the largest audiences possible, and that, since many people do voluntarily expose themselves to these statements, they must find some use or pleasure or stimulation in the media content. Or, perhaps more soundly, we may argue that there must be some significant relationship between the content of the mass media and the total society which secretes these media, and from which, in one way or another, their content must be derived.

Thus, Kracauer, in *From Caligari to Hitler*, argues that German films, 1920-1933, reveal in their content the political-psychological developments in the German people which made possible the accession of Hitler.³⁹ So, too, Wolfenstein and Leites, in their *Movies: A Psychological Survey*, suggest that American films reflect, covertly, the moral-sexual problems inherent in a Puritan culture.⁴⁰

3. The unit, or units, or analysis must be carefully defined. In a sense, quantitative content analysis is not unlike linguistic analysis; and just as the linguist must be able to agree with other linguists on the nature of a phoneme, a lexeme, an allophone, the content analyst must have a basis of agreement on the nature of his units of study. If he cannot achieve this sort of agreement on definitions, then obviously his careful counting is simply a sham, because neither he nor anyone else will know what he has counted.

Various kinds of units have been successfully used in content studies. Where the analyst is working from a literary text, or a transcript of a radio program, or the script of a television program or film, he may use the word as a unit of analysis. This may prove to be satisfactory in some cases—as, for example, where the point of the study is to identify a special vocabulary of some sort (does the text consistently use the language of Marxist economics? or of jive talk? or religious fundamentalism?). In many situations, however, a larger unit is useful, in which case the "theme" is ordinarily used. A "theme" in content analysis corresponds roughly to a sentence, with such modifications as precise definition makes necessary. Thus, in studying, say, Republican campaign speaking in the election of 1952, one category of themes would certainly have been headed, "It's time for a change". In the analysis, any sentence which phrased this argument in any fashion would have been counted under the "change" category. Another unit, which is especially useful in studying such material as newspaper coverage of an event, or television or radio news reporting, is the "item". The term is easy to define, but it omits such important issues

as the placement and length of the material. In the analysis of fiction or drama, the "character" makes a workable unit for analysis; characters can be categorized in many ways, and can be individually analyzed according to physical characteristics, motives, habits of behavior, and so on.

Rather less has been done with the content analysis of non-verbal phenomena, although promising beginnings have been made in various fields: it is now well recognized, for example, that vocal intonations constitute a kind of secondary language of speech, with its own vocabulary and grammar; much the same thing is true of gesture and posture. Of course, wherever a cohesive language, with its own units of meaning, exists, content analysis becomes possible.

Studies of Content: Qualitative Analysis and Criticism. The main virtue of quantitative analysis is its validity, its general currency as useful knowledge; its principal defect is its inability to deal with any but relatively simple, superficial issues in communication content. Qualitative analysis, if we regard it as closely allied to what is traditionally called "criticism", persists in part because of the long critical tradition in drama, literature and persuasion, in part because it serves a very real use in communication study.

Let us glance first at the critical tradition. The popular definition of "criticism" would seem to be a relatively simple and naive one: criticism consists in informing prospective consumers what a work is "about", and in telling them whether the work is good, bad or indifferent. No doubt, if we consult journalistic reviewers and commentators of the present day, this is about as far as criticism goes. But if we look at the critical tradition in Western culture, as represented in the long series of works from Plato and Aristotle through Horace, Cicero, Boileau, and Coleridge, to Burke, Richards and Empson, we gain a very different concept of the critical effort. Here criticism becomes considerably less a matter of simple summary and value judgment, and much more a process of investigation of the human communicative act. In general, such investigative criticism focusses on the text, on the symbols themselves, paying secondary if any attention to the communicator or the consumer, just as qualitative analysis does.

Where quantitative analysis depends on the ability to dissect and classify symbols in a simple, rather mechanistic way, relying on statistics to show (again) simple relationships among the symbols thus anatomized, qualitative analysis (or investigative criticism) focusses on the relationships among symbols, and the significance of these relationships.

The Nature of Qualitative Analysis. This is not to say, of course, that the qualitative analyst does not reckon in numbers or proportions at all. As Berelson remarks,⁴¹ qualitative analysis is usually quasi-quantitative, using looser counting techniques, less precisely defined units of analysis, more flexible categories—in effect, sacrificing rigidity of analysis to permit the encompassing of more complex issues.

Let us take a case in point. In 1949, Leo Lowenthal and Norbert Guterman published, as part of the Harper's "Studies in Prejudice" series, their *Prophets of Deceit*, a qualitative analysis of a body of texts drawn from the works of various American agitators, ranging from Charles Coughlin to Gerald L. K. Smith to Gerald Winrod.⁴² "This book . . .," says Max Horkheimer, "is confined to qualitative analysis. Not the frequency of the ideas, formulas and devices to be found in agitational material, but the meaning of demagoguery, of its techniques and appeals, its arguments and personalities, is the theme."⁴³ And again, "The content of present-day demagoguery is obviously empty, accidental, and entirely subordinate to manipulative considerations. Our homegrown agitators, in the absence of an American tradition of nationalistic aggressiveness, created an artificial fusion with Italian and German fascist notions. They have also borrowed certain forms of religious revivalism, without regard to any specific content, forms which exploit such rigid stereotypes as the distinction between the 'damned' and the 'saved'."⁴⁴

This study, rather than simply presenting lists of themes, was able to construct a convincing and valuable picture of the psychological universe of the agitator: the hostile world in which agitation thrives; the profile of the enemy, at once helpless and ruthless; the portrait of the listener, at once a simple dupe and a potential source of reform; the portrait of the agitator himself, a little man, a great man, an invulnerable hero and a prospective martyr. The point is, of course, that Lowenthal and Guterman, by using the relatively flexible techniques of qualitative analysis, were able to show all of these inconsistencies, and how they are reconciled into an integrated and meaningful agitational system—a feat hardly within the province of the quantitative study.

"The Lone Ranger": a Dissertation Involving Content Analysis.

Let us look, in some detail, at David Parker's dissertation entitled, "A Descriptive Analysis of the Lone Ranger as a Form of Popular Art,"⁴⁵ as a study involving content analysis and, indeed, making use of several kinds of critical techniques.

When this study was first suggested as a doctoral dissertation, the two normal, preliminary questions were automatically raised: "Is it worth doing?" and "Can it be done?" In this case, both questions could be answered affirmatively. To the first, "The Lone Ranger" had gone on the air early in 1933 as a radio series; in 1954-55, when the study was written, it was still enormously popular. In the intervening two decades, "The Lone Ranger" had presented himself in radio, television, films, comic strips, comic books, and personal appearances. His fame was nation-wide, perhaps even world-wide. If popular art was worth study at all, "The Lone Ranger" seemed decidedly worth attention.

Could the study be done? One of the main problems in any such research is that of getting at the materials: scripts, transcriptions, memoranda and letters, interviews with persons involved in the production of the

work. If a work has any current value, producers of popular art are often reluctant to release any of their materials for study, or discuss the process of their concoction. In this case, Parker had appeared, from time to time, on the "Lone Ranger" radio series, and consequently—through his acquaintance with the producers, directors, writers and performers—was able to gain access to a large body of useful material.

As the study was actually planned and executed, it consisted of three parts, one growing out of the other. The first section of the dissertation, then, presents a history of the popular arts and a survey of the criticism of the popular arts; the function of this section being to establish a set of perspectives within which "The Lone Ranger" series might be profitably viewed. The second part deals with the history of "The Lone Ranger" in his various manifestations, and with the producers' concept of the character and the series. The final section is a content analysis based chiefly on the radio scripts mentioned above.

The analysis of script materials in "The Lone Ranger" study was carried out more or less along the lines developed in the Lowenthal and Guterman *Prophets of Deceit*. Here we see the universe of the Lone Ranger, a sober, puritanical world in which there is no time for foolishness and the winning of the West is a deadly serious task; here are the people of that world, the "western mom", the "rich man", the "wholesome girl", the "suave schemer", the good guys and the bad; here are the activities, crime-centered and otherwise; here are the values by which people live; here is the character of the hero himself. Analysis of materials like those found in the "Lone Ranger" scripts, we may add, is comparatively simple and comparatively easy to validate, because the basic materials are themselves so thoroughly stereotyped. Any analysis of such materials must begin with the evident and here well-rationalized purpose of the producers, then proceed to explore the marginal areas of unintended themes and unintended significances.

In general, we may say of this study that it shows valid relationships between certain themes which are manifest in the series itself, and the universe of American popular culture within which these themes were developed and diffused. In part by implication, and in part by direct analysis, it adds considerably to our understanding of the intellectual milieu of Americans in the twentieth century.

Questionnaire and Interview Studies. In mass media research, the consumer represents the ultimate problem and the final source of data. We should hardly be concerned with the *who* or the *by what medium* topics were it not for our eventual interest in the audience. As we have previously remarked, the simplest and earliest question to be raised about mass media audiences was "How many?" Later, studies dealt with the question of "Which ones?" and "What are they like?"—the problem of audience composition. And most recently, students have occupied themselves with the complex of questions centering around the question,

“Why?” Why do they listen, read or watch? What do they get out of the experience?

To answer these questions, researchers have devised a great number of methods for questioning and observing the audience, ranging from the simple oral questionnaire (“Is your television set on now? What program are you watching?”) through diaries to complex written questionnaires and elaborate interviews. Space does not permit us here to discuss these methods in any detail; however, we can deal briefly with some of the elementary problems in interviewing and the composition of questionnaires.

Determining the Nature of the Problem. The range of information available from audiences is of course considerable, and the specific purpose to be achieved by any given study must be carefully defined. Even at this stage of study design, of course, the researcher should have some notion (see below) of the type of situation in which the information will be gotten, and the type of instrument used.

Thus, a comparatively new educational television station may not be especially interested in how many people watch their programs, but may be vitally interested in whether people have heard of their broadcasts, and what their image of the station is. The first part of this problem—whether people have heard of the station or not,—is comparatively simple. The chances are that researcher and station would be in agreement concerning the kind of information wanted; the questions necessary to elicit the information could be quickly devised; the interviewing itself could be done by telephone, or on a street corner, or on a door-to-door basis.

However, if we extend this problem a little, and decide that we also want to know where our respondents heard about the station, some difficulties at once arise. For example, suppose a respondent correctly identifies the station, and makes clear that he does know what it is and even what it does. If we ask him, “Where did you learn about the station?”, are we to be satisfied by a rather general answer such as, “I read about it somewhere”, or do we want to know that he read about it in the *Chicago Daily News* last week? And if a respondent answers that he read about the station in the *Daily News*, do we also want to know whether he has ever mentioned the station to his friends and family, or has heard them discuss it?

And if we go further still, to the problem of station image, we encounter further complexities. The term “image” is widely and somewhat ambiguously used these days, particularly to refer to public ideas, or concepts, or organizations. But what, for purposes of empirical study, are the components of a “station image”? Does the financing of an educational station have to do with this image? For instance, do we want to know whether people see the station as “their property” because they contribute to its support, or do they see it as a kind of extension of government, because they imagine that the government supplies it with funds?

Do we wish to go so far as to probe the connotations of the word “educational”? Do we want to know whether a respondent’s image of the station is based on direct experience—has he watched any programs?—or on second or third-hand information?

This sort of speculation could be extended indefinitely; but perhaps the above notes are sufficient to indicate some of the issues which must be dealt with. It is of the first importance that the precise kind of information required by the study be carefully defined early in the planning stages.

Determining How to Reach Respondents. The nature of the problem, to some extent, limits the researcher in the kind of interviewing situation he can contrive. The simplest kinds of information, requiring only a few factual questions, can be gotten almost anywhere: on a door-to-door survey, on a street corner, by telephone. Where more elaborate information is desired, a mail questionnaire may be used, or lengthy interviews arranged on an appointment basis. Long interviews with “open” questions which permit the respondent to talk somewhat at random should usually be tape-recorded; this generally means that the interview should take place in a situation where the recording instrument is not too obvious to the respondent. Mail questionnaires are useful where respondents are well-motivated to complete and return them; they require considerable initiative and effort—to say nothing of literacy—from the respondent.

By and large, in determining the situation in which respondents should be reached, the researcher should use a principle of parsimony. Never devise a situation which is more difficult or time-consuming—either for the respondent or the interviewer—than is necessary. If the sample of interviews can be taken at random, and the interviewing instrument be reduced to a half-dozen factual questions, do not set up a complicated design to accomplish a simple task. It is far better to spend more time on a research design to simplify it in all possible respects than to go into the field with a complicated instrument, the information from which may very well disintegrate upon analysis.

Determining the Sample. The problem of sampling is more or less that of a wheat buyer confronted with a carload of grain. How can he be sure that the whole carload is uniform in quality, and know what that quality is, since he cannot inspect each individual grain? What he does is to take a handful here and there from the carload—which, to a researcher, would be his “field”—and judge from that. This constitutes a kind of crude random sample. A social scientist, with a million people as his “field”, may also sample at random, interviewing every third, or tenth, or hundredth individual. Or he might construct a stratified sample. To do this, he would decide what characteristics—age, sex, education, socio-economic status, and so on—would be most important to his study. Then he would determine the proportion of these characteristics in the total field: how many men, how many women, in what age range. Knowing these proportions, he could set up a sample which would constitute a kind of miniature of his

field, and which, when studied, would yield the same information as if he had studied the whole.

We cannot here discuss the mathematics involved in constructing and validating a sample; instead, we must return to a remark made earlier in this chapter. The actual planning of a valid sample, in the main, offers no serious difficulties; but actually to reach the members of a sample group of a large population does present problems, especially to the graduate student who must usually work without much assistance in personnel or money. There are, of course, various answers to the problem. The student may use a random sample rather than a stratified one; he may choose to study quite limited fields or populations; and finally, he may find it possible to accomplish useful research which is technically non-projectable.

For example, Robert Conrad's study of the communication habits of the WFMT audience used considerable ingenuity in this respect.⁴⁶ Station WFMT is an FM radio station operating in Chicago, programming highly sophisticated music, talks and dramatic programs, apparently with considerable success. At the time the Conrad study was done, WFMT had no more than impressions—derived from mail, telephone calls, responses to advertising and so on—of the size or composition of its audience. Conrad prepared a lengthy and elaborate mail questionnaire to be sent to listeners. This questionnaire was distributed in two ways. The station publishes a program guide, which is distributed to a large number of subscribers; the questionnaire was sent out to members of this subscriber group on a random basis. In addition, the station broadcast spot announcements over a period of a week, explaining the nature and purpose of the study and asking listeners to request copies of the questionnaire. Since the WFMT audience is an extremely loyal and enthusiastic one, the response to this request was good; and the percentage of returns on all questionnaires sent out was high.

Our immediate problem here is: what sort of field did these questionnaires represent? There was, to begin with, no way to tell from this study anything about the total size of the WFMT audience. But did the questionnaires represent the total audience, whatever its size, accurately? Any answer to this question must, of course, depend on inference. It seems likely that the questionnaires sent to program guide subscribers came closer to a representation of the total audience than did the other group; however, some evidence in the study indicates that many enthusiastic listeners to the station are not subscribers, because they cannot afford the subscription price, or because they are temporary residents in the area, or for other reasons. It seems probable that the other group of respondents, who volunteered their services, might be taken as representing the regular, enthusiastic listening group. Then too, it was possible to examine the information contained in the questionnaires in both groups for consistency or the lack of it.

In short, the Conrad study constructs, without systematic use of normal

sampling techniques, a convincing and probably quite valid portrait of the audience of this station.

Stating and Pre-Testing Questions. We may assume, at this point, that the type of interviewing instrument will be pretty well determined by the kind of sample we want, the kind of information we want, and the sort of situation in which we expect to get the information. We now come to the task of stating our questions, and of making sure that they actually call for the sort of information desired. This process we may divide roughly into four steps.

First, we state questions in a preliminary form. If the study is being done by a team of researchers, this is not a bad occasion for brainstorming. If it is an individual project, the researcher is urged to duplicate the "free association" feeling of the brainstorming session as best he can. In either case, the point is to think of, and get down on paper, as many questions as possible, approaching the problems of the study from as many angles as possible. At this stage, great value should be attached to ingenious, imaginative and even "wild" questions.

The point of these admonitions is that the composing of a set of questions, like the composing of anything else, is a creative act. Somebody has to develop some original ideas.

Second, from this miscellaneous list we choose and rework questions. Here a certain amount of intellectual discipline and critical ability come into play. The researcher must decide what questions fit together to give him the total information he wants, and whether these questions really make sense *to him*. The words "to him" are italicized because he cannot, at this point, tell what they will mean to anyone else. He will finish this effort with a questionnaire which seems complete and workable.

Third, we test this questionnaire on colleagues. This first pre-test can be administered to a few colleagues as if they were respondents. The purpose is to try our questions out on persons who know something about questionnaires, and will be alert to point out any errors in the instrument. Indeed, it is sometimes desirable to ask a colleague deliberately to try to misunderstand questions, to be as captious, unhelpful and irrelevant as possible. All difficulties which arise during these sessions should be attributed to defects in the questions themselves, and the instrument should then be scrupulously revised in the light of these defects.

Fourth, when we have achieved a set of questions which seem as good as can be devised, we should pre-test them at least once more, this time on a group of individuals as nearly like those in the sample as possible. Their responses should be recorded and carefully studied, to see whether they contain the sort of information desired, and to reveal any further errors in the questions.

The foregoing procedures can readily be adapted to the preparation of all kinds of written and oral questionnaires which use "closed" questions (i.e., where questions are precisely stated, and admit only a limited range

of answers from the respondent). The prospective researcher should be warned that, although these procedures may seem time-consuming and over-meticulous, they are not so. Some of the startling difficulties involved in asking questions which make sense can be seen in Payne's *The Art of Asking Questions*,⁴⁷ a volume which should be familiar to anyone who ever expects to compose a questionnaire.

In addition to the steps described above, there remain the various problems involved in the actual interviewing and in the analysis of the results of the study. Both are, unfortunately, far too complex to be described here. The student is instead referred to the appropriate works contained in the bibliography to this chapter.

A Dissertation Based on Interviews: "The Process of Religious Persuasion". Perry's dissertation, "The Description and Analysis of a Process of Religious Conversion", is an interesting example of a "uses and gratifications" study involving a considerable amount of interviewing.⁴⁸ The author, himself a member of a Protestant, evangelistic sect called The Church of Christ, became interested in the fact that his church, in attempting to fulfill its missionary purpose, had made extensive use of radio and television broadcasting in efforts at conversion. According to various preachers of the church, these efforts had frequently been successful; there was, at the time the study was made, an impression current among members of the church that many individuals had been persuaded to join the organization through radio appeals alone.

Perry attempted to investigate this phenomenon. He was able, as a member of the Church of Christ, to persuade a sizeable number of preachers to fill out detailed questionnaires on their radio activities and their supposed effects. Among other items of information, Perry obtained a list of names and addresses of members of the church who had supposedly been converted by radio preaching. Some of these individuals he was able to contact in person, and from them he obtained lengthy, "open" interviews recorded on tape. In other cases, members of the church completed written questionnaires, describing their experiences with religious radio broadcasts, the situations in which they were converted, and their present religious activities. This material, together with various historical documents on the Church of Christ, its dogma and mission, constituted the data for Perry's dissertation.

It seemed clear from the beginning that this study had great interest for students of the mass media. The belief among church members that conversions had been made directly, through radio, seemed to contradict some of the results of then-emerging research in the mass media (discussed above) which suggested that, first, people were not persuaded to decisions of great consequence by the mass media, and second, that decisions of any kind, great or small, seemed to require a favorable predisposition on the part of the listener plus some direct, person-to-person influence. If Perry's initial hypothesis was correct, if his study demon-

strated that persons not disposed to join the Church of Christ, either because they were happily affiliated with other religious groups, or because they felt no need for religion, had been converted via radio without any other pressures being put on them, an important area of mass media research would have to be reconsidered.

As the study turned out, the hypothesis was not verified. The radio sermons of Church of Christ preachers were undeniably important in the process of conversion; but their effectiveness—even the question of whether they were heard at all or not—depended either on some predisposing factor (discontent with one's present church, sickness or death in the family, and so on), or on pressure from husband, wife, or friends, or both.

For our present purpose, this study is especially interesting because it makes extensive use of written questionnaires, fairly conventional in form, and of tape-recorded interviews, one of which is reproduced in an appendix to the study. The reader will note that Perry is somewhat unorthodox as an interviewer; where normally, in "open" interviews of this sort, the interviewer presents himself as a kind of sympathetic neutral, Perry tends to stress his own membership in the church and his understanding, through his personal background, of the sort of experience the respondent is trying to communicate. With these respondents, however, and with the rather delicate nature of the subject-matter, this technique seems to have worked well; and indeed, to be about the only technique that might have worked.

CONCLUSIONS

Research in radio, television and film may best be considered as part of the study of the mass media of communication, which in turn seems to be developing as part of a new field called "communications". To date, interest in mass media research, speculation and analysis, has been shown by scholars in many already-established "fields", notably speech, journalism, sociology, social psychology, and anthropology. Contributions from so many areas to the methodology and findings of this new area mean that the student interested in radio, television and film studies can profitably familiarize himself with a great range of work and technique in the social sciences, in psychology, and other areas.

For the individual graduate student, working in a speech department or school, certain well-established types of mass communications research seem especially advantageous. If we use the Lasswell formula—who says what to whom by what medium with what effect?—these studies would probably concern primarily the *who*, the *what*, the *medium*, and to some extent, the *effect*. Many profitable studies using the historical method remain to be done in this field; studies of communicators and their policies, studies of pressures on the media, studies of the technical and aesthetic

development of radio, television and film, and so on. Content studies may be used, not only out of a direct concern with the content of communications, but to reveal the motives and interests of both communicators and audiences. And finally, certain kinds of interview and questionnaire studies may be used to get at, not "effects" of the media, but the uses to which audiences put the messages, and the satisfactions they derive from them.

ESSENTIAL STUDIES IN RADIO, TELEVISION AND FILM⁴⁹

- Berelson, Bernard R., and Morris Janowitz (eds.), *Reader in Public Opinion and Communication*. Glencoe, Illinois: Free Press, 1950.
- Cantril, Hadley, Hazel Gaudet and Herta Herzog, *The Invasion from Mars*, with the broadcast script of *War of the Worlds*. Princeton, N.J.: Princeton University Press, 1940.
- Katz, Elihu, and Paul F. Lazarsfeld, *Personal Influence*. Glencoe, Illinois: Free Press, 1955.
- Kracauer, Siegfried, *From Caligari to Hitler: A Psychological History of the German Film*. Princeton, N.J.: Princeton University Press, 1947.
- Merton, Robert K., with Marjorie Fiske and Alberta Curtis, *Mass Persuasion: The Social Psychology of a War Bond Drive*. New York: Harper and Brothers, 1946.
- Schramm, Wilbur (ed.), *The Process and Effects of Mass Communication*. Urbana, Illinois: The University of Illinois Press, 1955.

METHODOLOGICAL BOOKS

- Berelson, Bernard R., *Content Analysis in Communication Research*. Glencoe, Illinois: Free Press, 1950.
- Bingham, Walter Van Dyke, and Bruce Victor Moore, *How to Interview*. New York: Harper and Brothers, 1959.
- Lazarsfeld, Paul F., and Morris Rosenberg (eds.), *The Language of Social Research*. Glencoe, Illinois: Free Press, 1955.
- Nafziger, Ralph O., and David Manning White, *Introduction to Mass Communications Research*. Baton Rouge: Louisiana State University Press, 1958.
- Payne, Stanley L., *The Art of Asking Questions*. Princeton, N.J.: Princeton University Press, 1951.

NOTES

1. Lazarsfeld and Stanton (Paul F. Lazarsfeld and Frank N. Stanton, *Communications Research, 1948-1949*. New York: Harper and Brothers, 1949, p. xi) note that while earlier volumes of research to appear under their editorship were entitled "radio research", the new volume was labelled "communications research" because "The techniques which are used to study the attitudes of readers are similar to those by which radio listeners are investigated. We understand the audience structure of one medium better if we use for comparison data available on all the others."

And Schramm, a year later, remarks that "communications research is a development of the last few years. Fifteen years ago, the term hardly would have been heard. Fifteen years ago, the *Literary Digest* mail vote was still the

popular idea of a public opinion poll. . . . The great development in audience measurement, public opinion sampling, content study, and the measurement of social effect, has not yet begun." (Wilbur Schramm, *Communications in Modern Society*. Urbana, Illinois: University of Illinois Press, 1950, p. 5).

2. Perhaps the best reference for these early studies is Norbert R. Rodeman, "The Development of Academic Research in Radio and Television for the First Half of the Twentieth Century." Unpublished Ph.D. Dissertation, Northwestern University, 1951.

3. *Recent Social Trends*. (Report of President Hoover's Committee on Recent Social Trends). New York: McGraw-Hill, 1933.

4. The dates are approximate. President Wilson broadcast an appeal for world peace shortly before the end of World War I, and the USSR claims to have used short wave to try to break the communications blockade imposed on them in 1917-1918. In the same way, television no doubt dates back to the "shadograph" experiments of John Logie Baird in 1925, and in a more practical way to the BBC efforts of 1935-1939. But in any real sense, as far as a mass audience is concerned, we may date radio from about 1922 and television from about 1948.

5. See, for example, Walter Lippmann, *Public Opinion* (New York: Harcourt Brace, 1922), and L. W. Doob, *Propaganda: Its Psychology and Technique* (New York: Henry Holt, 1935), along with many other titles.

6. Institute for Propaganda Analysis, *Propaganda Analysis: a Monthly Letter to Help the Intelligent Citizen Detect and Analyze Propaganda*. New York, October 1937-December 1941.

7. See Llewellyn White, *The American Radio* (Chicago: University of Chicago Press, 1947), p. 115. Rodeman describes a study by Daniel Starch, "Sizing Up the Radio Audience", in the *Literary Digest*, Volume C (January 19, 1929, pp. 54-55, as perhaps the "first broadcasting research of a . . . non-academic nature". (Rodeman, *op. cit.*, p. 20.)

8. For example, Richard M. Phillips, "The Relative Instructional Values of Radio and Platform Speaking", (Unpublished M.A. Thesis, University of Wisconsin, 1931), or Frances M. Knight, "An Analysis of the Aspects of Radio Drama Which Differentiate It From the Legitimate Stage", (Unpublished M.A. Thesis, University of Akron, 1932).

9. Hadley Cantril and Gordon Allport, *The Psychology of Radio* (New York: Harper and Brothers, 1935).

10. Hadley Cantril, Hazel Gaudet, and Herta Herzog, *The Invasion From Mars* (Princeton, N.J.: Princeton University Press, 1940).

11. Robert K. Merton, with Marjorie Fiske and Alberta Curtis, *Mass Persuasion: the Social Psychology of a War Bond Drive* (New York: Harper and Brothers, 1946).

12. Now available in translation, together with other selections from Rudolph Arnheim's remarkable critical work, as *Film As Art* (Berkeley and Los Angeles: University of California Press, 1938).

13. Raymond Spottiswoode, *A Grammar of the Film* (Berkeley and Los Angeles: University of California Press, 1951).

14. Siegfried Kracauer, *From Caligari to Hitler: a Psychological History of the German Film* (Princeton, N.J.: Princeton University Press, 1947).

15. Martha Wolfenstein and Nathan Leites, *Movies: a Psychological Survey* (Glencoe, Illinois: Free Press, 1950).

16. For example, Jurgen Ruesch and Gregory Bateson, *Communication: The Social Matrix of Psychiatry*. (New York: W. W. Norton, 1951).

17. See Carl R. Rogers, "Communication: Its Blocking and Its Facilitation", in *Etc., a Review of General Semantics*, Vol. IX, No. 2, Winter 1952, pp. 83-88.

18. See Ruesch and Bateson, *op. cit.*, especially Chapter 2, "Communication and Human Relations"; also Herbert Blumer, "The Crowd, the Public, and the Mass", in Wilbur Schramm, Editor, *The Process and Effects of Mass Communication*, (Urbana, Illinois: The University of Illinois Press, 1955), pp. 363-379.

19. I am indebted for these formulations to Professor Elihu Katz, of the Department of Sociology, University of Chicago; the reader will find most of them stated in Elihu Katz and Paul Lazarsfeld, *Personal Influence* (Glencoe, Illinois: Free Press, 1955).

20. See, for example, Eunice Cooper and Marie Jahoda, "The Evasion of Propaganda", *Journal of Psychology*, Vol. 23, pp. 15-25; Herbert H. Hyman and Paul B. Sheatsley, "Some Reasons Why Information Campaigns Fail", in Swanson, Newcomb and Hartley (eds.), *Readings in Social Psychology* (New York: Henry Holt, 1952).

21. Erik Barnouw, *Mass Communication* (New York: Rinehart and Company, 1956), pp. 92-95.

22. Roughly speaking, "structural" factors are those which have to do with the nature of the stimulus, while the "functional" factors derive from the moods, needs, and past experience of the perceiving individual. Thus, the structural factors tend to make for common meanings in messages, the functional factors for private ones.

23. See Katz and Lazarsfeld, *op. cit.*, especially Chapter XIV, "The Two Step Flow of Communication".

24. *Ibid.*, p. 309.

25. For example, E. S. Jorgensen, "Radio Station WCFL: a Study in Labor Union Broadcasting" (Unpublished M.A. Thesis, University of Wisconsin, 1949); Chester F. Caton, "Radio Station WMAQ: the Independent Years" (Unpublished Ph.D. Dissertation, Northwestern University, 1951); or James E. Lynch, "WWJ-TV, a History" (Unpublished M.A. Thesis, University of Michigan, 1949).

26. For example, Paul K. Crawford, "The Rise of the Reverend Charles Coughlin, Radio Speaker" (Unpublished Ph.M. Thesis, University of Wisconsin, 1936); Giraud Chester, "Radio Commentaries of H. V. Kaltenborn, a Case Study in Persuasion" (Unpublished Ph.D. Dissertation, University of Wisconsin, 1947).

27. For example, J. H. Ludlow, "An Inquiry Into the Meaning of the Phrase, 'In the Public Interest', As It Applies to Radio Programs" (Unpublished M.A. Thesis, College of the Pacific, 1948); Melvin Waskin, "Licensee Responsibility in the Censorship of Political Broadcasts" (Unpublished M.S. Thesis, University of Illinois, 1949).

28. For example, Eugen Hadamovsky, *Der Rundfunk im Dienste der Volkführung* (Gestalten und Erscheinungen der politischen Publizistik, Heftx I). (Leipzig: Noske, 1934); also, Thomas Porter Robinson, *Radio Networks and the Federal Government* (New York: Columbia University Press, 1943).

29. For example, Henry Breitrose, "The 'Nation' Criticism of James Agee: Attitudes and Biases of a Critic of Films" (Unpublished M.A. Thesis, 1959).

30. See Lillian Ross, *Picture*. (New York: Rinehart and Company, 1952).

31. See Wilbur Schramm, "The Challenge to Communication Research," in Ralph O. Nafziger and David M. White, *Introduction to Mass Communications Research* (Baton Rouge: Louisiana State University Press, 1958), pp. 14-15.

32. Bernard Berelson, *Content Analysis in Communication Research* (Glencoe, Illinois: Free Press, 1951).

33. Edmund Carpenter and Marshall McLuhan (eds.), *Explorations 1-9*, published by the University of Toronto.

34. Other uses and gratifications studies will be found, complete or excerpted, in the Schramm and Berelson and Janowitz anthologies cited in the bibliography.

35. Walter J. Ong, S.J., "The Uses of Grammar", in *Problems of Communication in a Pluralistic Society* (Milwaukee, Wisconsin: The Marquette University Press, 1956), pp. 23-40.

36. The actual analysis involved in any well-planned quantitative study can be done by any trained person with predictable results; whereas the brilliant perceptions of, say, Kenneth Burke's "A Rhetoric of Hitler's Battle" (in Burke's *Philosophy of Literary Form* [Baton Rouge, Louisiana: Louisiana State University Press, 1940], pp. 191-220) could hardly be duplicated by anyone save Burke himself.

37. Expert testimony by Harold Graves, Jr., and Harold D. Lasswell in U. S. vs. William Dudley Pelley, et al., summarized in opinion of the U. S. Circuit Court of Appeals for the Seventh District, October term and session, 1942.

38. Smith, Lasswell and Casey, *op. cit.*, p. 80.

39. Kracauer, *op. cit.*

40. Wolfenstein and Leites, *op. cit.*

41. Berelson, *op. cit.*, p. 187.

42. Leo Lowenthal and Norbert Guterman, *Prophets of Deceit* (New York: Harper and Brothers, 1949).

43. *Ibid.*, p. xi.

44. *Ibid.*, p. xii.

45. Unpublished Ph.D. Dissertation, Northwestern University, 1955.

46. Robert Conrad, "A Study of the WFMT Audience" (Evanston, Illinois: Department of Radio-Television-Film, Northwestern University, 1956).

47. Stanley L. Payne, *The Art of Asking Questions* (Princeton, N.J.: Princeton University Press, 1951).

48. Lowell G. Perry, "The Description and Analysis of a Process of Religious Persuasion", (Unpublished Ph.D. Dissertation, Northwestern University, 1956).

49. Some of the studies listed in this section may be regarded as classic researches in the field, and should be thoroughly understood by any student of mass communications; the other books are basic anthologies of research, which should serve the purpose of providing the student with means to plan a very extensive course of reading in his field.

CHAPTER 15

The Art and Science of Factual Reporting

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Perhaps the greatest value contributed to man by the arts of writing and printing is that others may know and benefit from what one has done. It is with the duty and high privilege of reporting one's research findings that this chapter is concerned.

GOOD WRITING IS MADE BETTER BY GOOD MATERIALS

The first step in preparing a speech is choosing a subject. No real artist in any field has ever wished to dissipate his creativity upon an unworthy subject. Both student and adviser should seek a subject the research of which gives promise of being alike feasible and fruitful. It need not be pretentious—ought not to be. The scholar's top test of phraseology should be: Does it convey precisely the meaning intended? If only uncommon specialist terminology will do this, so be it. But language chosen to impress rather than to make clear may well be suspect in what pretends to be a scholarly dissertation. True scholarship is more than vocabulary-deep. "Use common words to say uncommon things," was the counsel of Schopenhauer. But however it is phrased, let the subject itself be worthwhile. Let it be one in which the pride of student and adviser may increase with the passing years.

The more able the sculptor the finer should be the piece of marble chosen to express his talents. The more able the graduate student the finer should be his choice of dissertation topic. Good writing is made better by good materials. The prestige of the field of speech, of an individual institution, of a faculty adviser, and of a graduate student is greatly dependent upon the wisdom of the dissertation subject choice.

GOOD WRITING IS MADE BETTER BY ADHERENCE TO RULES

Many students immediately recoil from the suggestion that there are forms to be followed and rules to be observed. It would seem that the

Constitution and certain inalienable rights of man must guarantee freedom from tedious orthodoxy for every graduate student, and let the shattered syntax fall where it may. Rarely do these rebels without a cause recognize that the binds which they seek to throw off are actually their finest and safest guarantee of effective expression. One's originality and imagination need be no more restricted by the laws of language or editorial policy than freedom of physical action is constrained by the laws of gravity. The various guides, manuals, and texts listed in the bibliography at the end of this chapter or recommended by a given graduate school are intended merely to smooth the path and provide assistance for the writer, typist, editor, or typesetter. In the interest of uniformity and more clear communication each graduate school and each publication and each publisher will have a set of rules to guide the writer. These rules provide the writer with assistance in a measure that is filled up, pressed down, and running over, and should be accepted with enthusiasm and appreciation. Every writer turns first to such rulebooks for his specific task and they take priority over all other authorities. It is to be understood that all specifics presented in this chapter are itemized here only to supplement such guides or to serve in tasks for which such specialized rulebooks do not exist.

Purpose is a primary determinant of the style of writing for any situation. In the literary world a writer may seek to command a style which is a thing of beauty in itself, or a revelation and attribute of his own personality, or a popular and effective expression of an idea, or the attainment of a kind of universality which is lasting literary value. But in scholarly writing the purpose above all others is that of precision and exactness in meaning. And because this very striving for exactness in meaning does depend heavily upon the use of language rules and semantic principles, there is a tendency to let this style deteriorate into the merely mechanical and meaningless jargon found all too often in government, business, and campus reports.

This observation causes Editor Charles W. Ferguson to observe:

So it seems to me that alertness to the values and dangers in stylized forms of writing—stereotypes of style—can help us. But stylized writing offers no substitute for style. There are certain components all good writing needs. These components and the attitude that must guide their use were never better set forth, to my knowledge, than they are by F. L. Lucas, Fellow of King's College, Cambridge, in his remarkably helpful book, "Style."

The first is clarity. And how is clarity to be achieved? "Mainly," says Lucas, "by taking trouble and by writing to serve people rather than to impress them."

. . . A piece of writing in our day must above all else be readable, so beveled that it will pass almost unnoticed through the eye into the mind. One reads it without thinking and reflects on it, if at all, *after* he has read it.

Think what an illuminating difference it would make all around if those now using, say, business dialect or pedagogical patois would control their expression

by this principle of service to the reader. Certain hefty terms become the signs of learning, and a great deal of the turgid prose in the field of education, for example, comes about simply because words are used to show that the writer belongs to the *cognoscenti*. Thus we get in education and social work an *underprivileged preadolescent*, meaning a poor child. . . .

Schopenhauer likens a man's style to "the dough out of which all the contents of his mind are kneaded." He goes on to observe that, instead of really revealing these contents, many writers "try to make the reader believe that their thoughts have gone much further and deeper than is really the case. They say what they have to say in long sentences that wind about in forced and unnatural ways. . . . They tremble between the two separate aims of communicating what they want to say and of concealing it. Their object is to dress it up so that they may look learned or deep, in order to give people the impression that there is more in it than for the moment meets the eye. . . . Authors should," he concludes, "use common words to say uncommon things."¹

Charles Ferguson is a senior editor of *The Reader's Digest*, and his book, *Say It With Words*, published in 1959 by Alfred A. Knopf, Inc., will be found well worth study. In the article from which the above quotations are taken, Editor Ferguson goes on to stress the importance of brevity, along with the clarity already mentioned. But the graduate student needs to realize that brevity is not just briefness. Let us illustrate. It takes a surprisingly large quantity of maple sap to boil down into rich maple syrup. And if you wish even a small piece of maple sugar you must begin with a prodigious amount of sap. Briefness may be likened to a small quantity of maple sap. But true brevity, like maple sugar, is a concentrate which is achieved only after boiling down an amazing quantity of sap. Let it be the research writer's rule to write extensively and inclusively. You do not begin with brevity. It is an end product.

Nulla dies abeat, quin linea ducta supersit. (Never let a day pass without (writing) at least a line.) If some noble Roman did not speak to this point he should have. The delightful bit of whimsy which has led students to believe that some academic muse will descend upon those who wait patiently for inspiration has produced more "all butts" than war, pestilence, or famine. Any student who has completed "all but" his thesis or dissertation probably lacks nothing more than the ability to apply the seat of his pants to the seat of a chair for an extended period of time.

Never a day without a line! When the subject has been chosen the writing should begin. Perhaps not *the* writing, but *some* writing. Not *brevity* yet, but clarity, and inclusiveness, and the raw material out of which brevity eventually may come. Random thoughts, interesting ideas, apt phrases, whatever comes to mind should be recorded for future re-examination. Much of this material, this early writing, may not survive later condensation, but certain sparks of insight and imagination which otherwise would have been lost will be preserved and available for use in the later refining stages of writing. Perhaps most important of all, you will

get off the dead center of a sort of literary inertia and pick up the necessary writing momentum to carry you through toward completion of the task. The combined self-discipline and its resultant personal satisfaction as your thoughts take on a kind of immortality on paper assume the proportion of an irresistible inner drive encouraged by tangible evidence of progress that is good for the spirit.

Perhaps we must illustrate, in order to make clear their importance, some of the more routine rules of language. Clarity and brevity result from the use of many basic facts of grammar and punctuation. Driving one's self into habits of work is only one of the disciplines leading to precision and exactness of meaning. As already suggested, the formal nature of thesis and dissertation style compels us to become familiar with its essential attributes. The necessarily impersonal and objective treatment of our materials calls for considerable skill in the manipulation of complex sentences and relatively long paragraphs. Short sentences are used to isolate or emphasize details. Longer sentences tend to be required to describe procedures and techniques. The stress is upon factual intensity with little concern for trivial entertainment devices such as metaphor, irony, and repetition. The whole structure and character of the work is austere, with formal dignity and respect attained more from general impression than through purple patches. This does not imply that the writing is to be dull. A chain of intricate reasoning hammered into exactitude of literary form is a thing of beauty and just as magnificent in its own right as the elegiac couplets of Catullus. The realism of a scholarly work—the product of an observant eye, retentive memory, and direct expression—provides undiminished, but different, opportunity for demonstrating mastery of the written word. Words are ever the subjects, rather than the masters, of facts and evidence. Scholars will deplore with severity and gnashing of teeth any use of words beyond their function as objectively descriptive symbols.

The three A's of writing are *Assemble*, *Appraise*, and *Arrange*. Until such time as relevant material may be attracted to an author through some ethereal magnetism there will be no substitute for the tedious tasks of collecting and culling data. We have also noted that to have a superior end product there must be far more raw material collected than may finally be used. This means there must be discriminating evaluation and selection. Finally the scheme of arrangement must be discovered and rigidly applied. Failure to provide this groundwork inevitably will leave the author with an *ominum-gatherum* to defy the greatest of literary talents. This we note to satisfy that reluctant reader who may be objecting that research talent is more important than literary talent. It is a waste of time and energy to argue which is the more important of two necessities. One may admire a writer's perspicuity and his moments of hard labor in the library stacks; but it should be abundantly clear that where a literary end product is sought, one cannot accept the intention for the deed.

Let us be frank to recognize that many if not most, of the structural defects of sentences hailed by some as symbols of imaginative literary

style are more commonly signs of academic affectation. Obscure words, long periodic sentences, and diffused paragraphs may be more revealing of the confused state of the writer than of his intended meaning.

Words refer to concepts and they must do so correctly and understandably. They must therefore be precisely chosen, spelled accurately for instant recognition, and arranged with exactitude. Pleasantness and interestingness of verbal symbols must take second place to meaningfulness. Each writer will need access to, and make full use of, vocabulary aids. In addition to a reliable up-to-date standard dictionary, he should have available as required such similar reference books as the *Theatre Dictionary*, *Dictionary of American Grammar and Usage*, *Encyclopedia of the Arts*, and Roget's *Thesaurus*. He will be well advised to inventory his library's available and relevant reference works, especially the dictionaries for the many specialized fields of knowledge.

The development of complex ideas, the adequate exemplification of principle, is most frequently achieved through economy of words, succinct statement, and the clarifying use of metaphor, allusion, and epigrammatic expression. The writer who wishes acclaim for his lucidity will make certain that in each sentence: the subject is clearly identified, verbs agree with their subjects, and modifiers are neither misplaced nor misrelated. He who believes that punctuation marks were invented to fill the keyboard of a typewriter is doomed to spend many unhappy hours arguing ineffectually with faculty members and editors.

Avoid misleading a reader by uncertain and ambiguous references. Do not, by the heavy use of relative pronouns, compel him to wonder "whatever is that of which those whom we read write." Perhaps you are one who, among your many objections to "unnecessary rules", would deride the grammarian's objection to terminal prepositions. Then consider how excessive the result could be: "Why did you bring that book I don't like to be read to out of up for?"

Enough of this, however. It is not our function here to review all of the rules. You will consult—and absorb—a good manual of style. Make your choice of manual carefully and suitably for your purpose. We have used here but a few illustrations, seeking to make clear our reason for emphasizing that good writing is made better by adherence to rules. The late William Strunk, Jr., when he was professor of English at Cornell University, stressed one rule above all others: "Omit needless words." In that spirit he published a brief manual, *The Elements of Style*. This has been republished in 1959 by The Macmillan Company, including revisions and a new chapter on writing by E. B. White. On the next to the last page—and this is only page 70—of this value-packed little book, White adds a succinct warning to the rebel student who would revolt against rules:

"But," the student may ask, "what if it comes natural to me to experiment rather than conform? What if I am a pioneer, or even a genius?" Answer: then

be one. But do not forget that what may seem like pioneering may be merely evasion, or laziness—the disinclination to submit to discipline. Writing good standard English is no cinch, and before you have managed it you will have encountered enough rough country to satisfy even the most adventurous spirit.²

GOOD WRITING IS MADE BETTER BY “A WRITER’S PERSONAL SENSE OF FACT”

We have stressed rules first because we believe that only after a man has mastered the tools of language—words, sentences, paragraphs, patterns of ideas—is he qualified with true creativity to express through them his unique facts, his personal insights, and his very own contributions to knowledge. It was a Frenchman (Buffon) who defined style as “of the man himself.” Another Frenchman (Brunetière) described it as “one’s manner of expressing one’s self”, suggesting, perhaps, that style is a personal manner of speaking or writing—or at least should be—just as uniquely individual as is one’s way of walking, or one’s identifiable traits of movement recognized in a sample of penmanship. We like particularly the descriptiveness of Pater’s phrase: “a personal sense of fact.” Though this quality is too rarely and too little stressed, we believe that scholarly writing is strengthened when it conveys the sense of personal integrity of the writer. We suggest there are three aspects to this “personal sense of fact.”

First, it is what adds to well disciplined mastery of language unusual and lasting quality. It puts life into correct and acceptable English. Maurice Chevalier, at 72, observed, “Old age isn’t so bad when you consider the alternative.” He had added an unique touch to a familiar idea. Shakespeare, in one of the Sonnets, asked, “Who is it that says most? which can say more than this rich praise,—that you alone are you?” This “you” is the quality of uniqueness that must be put into your scholarly writing. Francis Bacon was illustrating a pithiness of style, but also “a personal sense of fact” when he wrote, “Reading maketh a full man, conference a ready man, and writing an exact man.” Yet we are certain he did not mean just a mechanically exact man; for Bacon also observed, “Discretion of speech is more than eloquence; and to speak agreeably to him with whom we deal is more than to speak in good words or in good order.” Whether speaking or writing, we have a duty to give to our words unique and lasting qualities.

In this age when many feel that we have not quite given accurate expression to objective truth until we have reduced it to a mathematical formula, it is as dangerous as it is difficult to define “a personal sense of fact” without seeming to advocate dilution of objectivity. We seem readily to take it for granted that methods of research can be improved; that some have a greater personal sense of scholarship than have others. We readily accept, also, that this adds to, rather than subtracts from, the quality of their workmanship. We ought equally to recognize that mastery of the art of words should increase, rather than diminish, accuracy of expres-

sion. The accuracy of Richard Carrington as a scientist is not diminished when he writes in *A Guide to Earth History*, "If we imagine that the whole of the Earth's history were compressed into a single year, then, on this scale, the first eight months would be completely without life. . . . Man as we know him would have strutted onto the stage at about 11:45 p.m. on December 31st, and the age of written history would have occupied little more than the last 60 seconds on the clock."

We urge that each scholar learn how to put something of his unique self into his factual reporting in order that the truth he knows may find an abiding place in the minds of succeeding generations.

Style is not rules alone. It will not necessarily be good style just because it is *correct* style—any more than it will be scholarly just because it has the trappings of scholarship. Some hold the mistaken opinion, for instance, that data become evidences of scholarship once they have been reduced to statistical form. We would remind both graduate students and advisers of two considerations in this regard. Much data which can never be statistically significant may nonetheless have great importance; and, adding the finest statistical refinements to meaningless data is as superficial as adding a deodorant instead of taking time for a bath, albeit much indulged in! Following rules and amassing data are not alone enough. It is when a person of real caliber puts himself into the task that something worth while happens.

There is a second significant aspect to this "personal sense of fact." The graduate student will find it helpful when he is ready to do his writing to turn to high quality samples of what has been done by others, in scholarly journals or in dissertations available in graduate libraries. But what he finds in such sources will be most beneficial only if used to help him realize more fully what potentials he has within himself for the effective expression of his ideas. Thus it is that rules are to implement and help us give more adequate expression to our native talents. In this sense we study rules, and observe their effective use by others, not that we become mere conformists in the narrow sense, nor that we become cheap copies of rich originals, but rather that we find outlet and inspiration for those qualities which potentially are in us. Schopenhauer more than a century ago observed that a mediocre writer tries to mask his own natural style behind supposedly respected rules and outward imitations of what has received favor. Perhaps we might add today that such a mind overwhelmed by its feelings of inferiority spends more time on *re*-search than research and thinks to become a scholar by evidencing familiarity with scholars. There all too seldom becomes a true and new scholar behind the writing, and in and a part of the writing. When a young mind is swept by its own new-found enthusiasm for knowledge to grasp hold of helpful rules and inspiring examples in order to express more meaningfully his own "personal sense of fact," then he has crossed the threshold into a writing style which is alike worthy of him and of his task.

This leads us to the third and climaxing observation. In this sense, the

finest scholarly style is a privilege achievable only by superior minds, conscious of their own worth, confident and confidence-inspiring. Bertrand Russell caustically observed that ours is an era in which: "Only the stupid are cock-sure; the intelligent are filled with doubts." He may have a point tremendously worthy of consideration. Have we overemphasized the modesty and the humility which will as always be the mark of the great mind and the outstanding authority? Is it possible that the true scholar's humility may be mistaken for ignorance by the mass of mankind who will then follow the stupid, the quack, and the demagogue because only they speak and write with positiveness and assurance? Surely it ought not to be so. Let the scholar write "as one having authority"—the only authority worthy to rule over the minds of free and able men: the truth. Let the scholar not be content with discovery alone. He has an obligation to express and communicate his knowledge that all may know.

A FEW PRACTICAL HINTS

In the final analysis, what you are will determine what writing you will do, what quality it will possess, and what influence it may wield. Yet there are ways of greater efficiency. These must be sought and used by the scholar who would make best use of his particular talents under the personal limits of time and energy. To this end we offer from experience a few practical hints.

1. *Take advantage of the work already done for you by others.*

Take some time to acquaint yourself with the reference tools available to you in the library. It is of little worth to make a list here. You must inventory these yourself. Handle them. Check through their contents, that you may know firsthand what potential value each holds for you. Check with an experienced reference librarian lest you overlook sources which might save you much time and energy. Do not assume that you know what is available in dictionaries and encyclopedias until you have surveyed these. You may wish to purchase for your own desk a thesaurus, a book of synonyms, an atlas. You will be able to make best possible choices for your own personal needs by adding to your own observations the skilled and experienced counsel of librarians and counsellors wherever these may be available to you. Just as in taking a trip, so in writing: we save much time and make far wiser use of our energy if we first take advantage of the experience of those who have been there ahead of us.

2. *Acquaint yourself fully with any rules available to govern your particular writing task.*

Each graduate school lays down specific requirements as to the form in which theses and dissertations are acceptable. The editors of journals will provide detailed instructions. So will book publishers. We have listed sev-

eral references at the end of this chapter offering much more detailed information and guidance in many aspects of writing. Perhaps the most widely used guide for writers is *A Manual of Style*, published by The University of Chicago Press, of which the *Turabian Manual* we have listed is a condensation. Many university presses and professional journals accept as authority the brief *MLA Style Sheet*. This is published by the Modern Language Association of America and is the standard required by such publications in the speech field as *The Quarterly Journal of Speech*, *The Educational Theatre Journal*, *The Speech Teacher*, and *Speech Monographs*. For *The Journal of Speech and Hearing Disorders* and *The Journal of Speech and Hearing Research* contributors should consult the editor regarding manuscript form. You may also wish to order for your own desk from the United States Government Printing Office its *Manual of Style*.

3. *Consistency is a rule above all others.*

Be uniform in spelling, punctuation, capitalization, footnote form, and all such details. This rule applies also to meanings attached to terms, or the sense in which a given word is used.

4. *Be considerate of the reader.*

This rule has many implications. If you are interested in vocabulary difficulty and other aspects of "readability" you may wish to consult from our references the book by Flesch and the inclusive volume by Klare and Buck. There is much difference of opinion, from this standpoint, with regard to the use of footnotes. However, a scholarly writer seeks only, or certainly primarily, discriminating readers. Such readers wish to see statements documented with sufficient detail so they may check the reference if they wish. The precise location of footnotes ought to be with the readers' interest foremost. Many readers are critical of appendix sections of dissertations. If material is reserved for inclusion in the appendix it ought to be of such a nature that the majority of readers would not be likely to care to refer to it, yet of such import for the critical reader that it must be available.

5. *A copyright is a protection against thievery of ideas.*

No true scholar would wish to assume to himself credit which rightly belongs to others. Thus permission should be secured from authors and publishers of all copyrighted material as a matter of ethical as well as legal practice. Margaret Nicholson's *Manual of Copyright Practice* is listed in our references. If you wish to know how to secure a copyright, address the Register of Copyrights, Library of Congress, Washington 25, D.C. In broad terms, the protection of a copyright is against another's making profit by unpermitted use of an author's work. Since scholarly works usually are not concerned with making profit, the legal and practical

aspects are much less rigorous in quoting from professional and scholarly works than from a novel or collection of poems. This does not, however, lessen at all the ethical obligation to secure permission for quotations.

6. *Know where opinions are out of order.*

It is not true that opinions as measured and experienced judgments are out of place in scholarly writing. It is important, of course, to realize that the writer must make clear when objectivity has been abandoned and subjective judgments are entering in. The reader has a right to know clearly which is which. But it is difficult to imagine any greater disappointment than to arrive at the end of some dissertations and find that the writer has not achieved sufficient maturity to share with the reader, in addition to his factual conclusions, certain value judgments to which his experience entitles him. Fairly stupid men can see and exhibit facts, especially if they follow good rules carefully. It is left for brilliant and trained minds—one would hope—to see and describe the significance of facts.

SO MAY YOUR WRITING IMPROVE

Good materials, adherence to rules, and personal sense of fact are not achieved easily, nor quickly. They are but means toward an end. Nor is the end perfection. Nor need it be. The scholar need not find all there is of truth. He finds high satisfaction in having made a contribution, however small. In a similar way, he who perseveres to better his factual reporting finds pride in personal growth and the assurance that his work will not pass unnoticed and unknown.

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CHAPTER 16

Graduate Study and Research in Speech

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INTRODUCTION

From the earlier chapters of this comprehensive text you have glimpsed the varied ways by which you and your associates may seek additional knowledge of the processes of speech, and probe for fuller understanding of man and his communicative behavior. Acquainted with these methods of research, you will be able to work independently and on your own initiative,—to do research. Also, remembering the listed procedures and cautions, you will read all publications more critically to appraise the reliability and trustworthiness of the reported information. A graduate student not only rigorously demonstrates the reliability of his own facts, he also demands that others do the same.

Yet more should be said about the program of graduate study upon which you have embarked. While course work and the employment of appropriate research methods are essential parts, they are not the whole of the experience of being a graduate student. For “doing graduate work” is not a temporary occupation, limited to a passing period of frenzied activity between one degree and another. In a very real sense, graduate study is a preparation for a way of life; the obtained degree standing as a symbol of new concepts and habits, a sign of increased personal contribution to human knowledge and welfare. Graduate study is a unique experience, which happens *in* a graduate student as well as *to* him.

In the welter of assignments and the pressures of advanced courses, however, it is easy for any student to lose sight of the whole, and to see his work as a mere routine forced and dictated by rules and requirements. It is almost inevitable, moreover, that the Graduate School should appear at times as an impersonal administrative and enforcement mechanism. Yet the entire history of graduate study gives ample indication that graduate schools and facilities have evolved to provide educational opportunities for individual human beings who rank high in ability and self-initiative. Graduate programs have evolved and exist for the students.

Thus, for any graduate student, there is no better antidote for the

occasional discouragement and loss of objective than an awareness of the ideals and labors of his predecessors. Graduate programs, as you know them today, did not just happen; many able minds have dealt with the perplexities and problems involved in the establishment and development of graduate study and research; problems and perplexities foreshadowing those that will challenge the future directors of graduate study who are now reading these pages.

For the student who would “know about” and achieve greater understanding of the meaning and nature of his graduate study, the succeeding pages of this chapter provide a brief account of the origins and growth of graduate work in the United States. With this perspective, the beginning graduate student becomes more familiar with the traditions and concepts of graduate study in speech, and gains increased understanding of the time and manner of its arrival as a full fledged member of the university graduate school. This greater knowledge of the “how” and “why” of the concepts and practices of graduate study may well bring, likewise, an adaptive understanding of the sometimes puzzling, and even bothersome, requirements and demands. It helps to know the background and rules of the “club” you have joined.

No thoughtful student who scans this history of graduate study can avoid wondering why speech has appeared so recently among the academic disciplines “offering graduate work.” Man has been a talking creature for something like a million years. Why then was academic study of that most universal and characteristic behavior so long delayed? In all likelihood, primitive men had some curiosity about speech; evidences of organized study date from the advent of written records. Yet programs of graduate study in speech span scarcely more than one generation. Many departmental chairmen still in active service remember quite vividly the first advanced degrees in speech awarded at their institutions. And such is the field that others still are anticipating the first such degrees at their own institutions. Inevitably, the graduate student wonders, why? And speech, of all areas?

The answer to that question, and to others of similar import, may be found in the record of man’s long search for wider knowledge of the world and, more lately, of himself. That record, outlined in the latter pages of this chapter, is one of changing concepts of the nature and sources of knowledge and the discovery of new methods of its acquisition. Speech as an academic discipline, and a recognized area of graduate study and research has come only with the present day concepts of human structures and behaviors, and with modern methods of research. Seen in the light of the history of man’s continuing struggle to enlarge his information and understanding, the very newness of speech challenges today’s graduate student to an unlimited future.

DEVELOPMENT OF GRADUATE STUDY IN THE UNITED STATES

However ancient and mossily traditional graduate study may seem to the recently registered student, it has existed in the United States only during the last century. Though Harvard University offered a Master's degree as early as 1642, relatively little graduate work as such existed prior to the Civil War. Since that time, however, individuals, universities, and the learned societies have cooperated to develop present standards and procedures. Simultaneously, the greater participation and leadership of the United States in international affairs, the marked rise in the standard of living, the changing pattern of employment, and the unprecedented increase in school enrollments at all educational levels, have fostered the addition of institutions and students at an accelerating rate. Thus, through the interaction of these, and other, educational, economic, and social factors, graduate study developed in a pattern which has structured the advanced work in speech; a pattern involving the recognizable periods of *Establishment*, *Standardization*, and *Expansion*, preceding the present *Modern Graduate Work* of which the present graduate student in speech is an integral and significant part.

Period of Establishment. Graduate work, as a part of the American educational program, emerged with increasing clarity throughout the latter half of the nineteenth century, and particularly following the Civil War. This early graduate work, however, was not as we know it now. Few institutions were granting advanced degrees, and these operated more or less independently, with considerable variation in standards and requirements. Degrees were awarded both in course and *honoris causa*, even, occasionally, the Ph.D. Advanced work was centered mainly in foreign universities. If at all possible, any aspirant to a college or university post went to England or the Continent for his graduate work. This was true not only in the physical sciences, but in literature and the classics, in biology, and in the newly arrived field of psychology.

Yet graduate study abroad, however desirable, involved financial difficulties for many of those who would look beyond the bachelor's diploma.¹ The student's pocketbook, however, was not the only factor influencing the choice of a graduate school. As influential universities of recognized standing enlarged their curricula and facilities for advanced study and research, graduate programs of merit and rigor, in significant numbers, became available on this side of the Atlantic.² The ocean voyage became an election rather than an academic necessity.

Throughout this period of establishment, the schools, the learned societies, and educational authorities, all cooperated to bring some order out of the confusion. Standards of work, periods of study, fields for research, and distinctions between earned and honorary degrees, all were matters of critical deliberation, appraisal, and conscious selection. Graduate work in

this country did not just happen: neither was there a slavish imitation or following of graduate work elsewhere in the world.³ Though the varied backgrounds and experiences of the pioneers in graduate study inevitably introduced some conflicts concerning specific requirements and procedures, the general pattern of graduate work as based on resident study and research was set, and ideals and standards of scholarship were established within the framework and objectives of American universities.

Harmony of ideals and standards of scholarship, however, did not necessarily mean identical views of specific requirements and procedures. As Hollis⁴ indicates, the convictions and processes of American graduate work have been compounded of two antithetical educational traditions. Compounded, but not blended, as attested by some variation in opinions concerning rules and regulations and stated requirements among present day graduate schools, and even from department to department within the same university.

From the essentially aristocratic colonial college of liberal arts came the traditional belief in a prescribed curriculum presenting the alleged fundamentals of knowledge and truth. Adherents to this tradition tended to extend to the graduate level the conventional undergraduate pattern of specified courses and close supervision of the student's educational choices and activities. The contrasting tradition, from the nineteenth century German universities, stressed individual freedom and responsibility in learning, research, and the publication of findings.

These two antithetical traditions occasioned differences in procedure and administration that still exist, though to a lessened degree. Present day graduate schools differ somewhat in the amount of maturity, initiative, and self-direction expected of graduate students, and consequently, in the amount of faculty supervision deemed necessary to provide favorable and profitable conditions for the individual student. Variations exist, likewise, in the rigidity of course requirements, ranging from the specific prescription of sequences or groups of courses, packaged into "majors" and "minors" on the traditional undergraduate pattern, to the concept of an integrated program drawing upon the resources of the university without regard to departmental lines. Similarly, one graduate school may measure the progress and accomplishments of a graduate student mathematically in terms of accumulated course hours, while another may require only a specified period of "full time graduate work" culminating in a satisfactory demonstration of the student's mastery of his field of knowledge and his ability to conduct research by his own efforts. Similar divergence appears in the relative prominence of course work and research; the proportion of his time the student is expected to spend in mastering the knowledge carried in established courses as compared with his efforts to acquire the information and skill necessary for research.⁵

Period of Standardization. With the pattern of resident study and research established in the interval between the Civil War and the end

of the century, the time from 1900 to 1920 may be called the period of standardization of graduate work. It was also a time of substantial increase in the number of institutions granting advanced degrees and students seeking such awards. The general increase in college enrollments not only provided more demands for teachers with advanced degrees, but also supplied a larger group prepared for graduate work by four years of college study.⁶ Further, with advanced education more readily available to a wider segment of the population, and less restricted to the "privileged few," graduate students in larger numbers were willing, as well as financially forced, to vary the earlier pattern of graduate work at a foreign university, to "labor in the vineyards" of the homeland. As a final influence, after the outbreak of World War I in August, 1914, trips to Europe for advanced degrees were impossible. American graduate work was on its own.

Even more significant than expanding numbers, however, was the co-operative work of the universities themselves, to clarify and unify the concept of graduate work as based on resident study and research.⁷ The adoption of its Constitution by The Association of American Universities, February 28, 1900, was indicative of the temper of the time. Of its purpose, the Association said, "[This Association] is founded for the purpose of considering matters of common interest relating to graduate study and research."

With scholarship as the basic concept, the discussions and self-criticisms of this Association, and many other groups, established the scope and organization of the Graduate School, and brought more nearly common agreement concerning requirements and procedures, definitions of research, and the nature of graduate degrees. Previously existing differences in requirements for admission, in the period of study, and in the content and types of examinations, were eliminated or lessened markedly.

As indicated earlier, some differences still persisted at the close of this period. Moreover, no one familiar with more than one graduate school, or even with more than one department within a graduate school can be unaware that variations appear today. Present differences, however, are noticeable mainly in catalogs and student conversations; they concern the means and specific techniques of accomplishing the generally accepted aims and objectives of graduate work. However they may be viewed by the self-appointed guardians of ultimate perfection, they are differing ways of achieving the common goal of scholarship.⁸

Period of Expansion. In the same approximate way, the thirty years from 1920 to 1950 may be considered the period of expansion of graduate work. Obviously, this terminology does not imply that graduate work has remained stationary since 1950; the statistics say quite otherwise. Rather, the title "Expansion" is justified by the unique and well-nigh explosive developments of this period. This expansion was evident in two dimensions: first, in the sheer number of graduate students, and, second, in the new subject matter areas applying for admission to the graduate school.

Though the increase in the number of graduate students was well under way in the earlier years, following 1920 the enrollment curve turned upward even more sharply. A number of attempts have been made to explain this rapid increase in the population of our graduate schools, but it is doubtful whether we have as yet the historical perspective to establish clear cut causative factors. To say that this growth of graduate work reflected population growth, or was simply a part of the increased registration in all schools, secondary and undergraduate as well as graduate, is no answer. True the population of the country increased considerably, but school attendance increased much faster than the general population.⁹ Apparently influential in this disproportionate growth of all higher education, was the increasing margin between the total supply of man's time and the hours needed to provide food, clothing and housing. Hours freed from producing the necessities of life may well be given to educational activities, particularly in a country which has a deeply-rooted national belief in education as the solution of social and economic problems, and an abiding faith in universal literacy.

More leisure time, more available money, and a belief in education, plus the development of certain prestige and status concepts, may well account, in part at least, for the growth of registrations in our institutions of higher learning on both the undergraduate and graduate levels.

In the United States, however, another factor has been added to those of faith in universal literacy, the belief in education, and the social prestige of college attendance. Out of the revolutionary eighteenth century this country developed a belief in the rights of the individual and equal opportunity for all. The American public school system, open to all, is one example of this democratic principle. Moreover, the belief in equal opportunity does not stop with the public school; it continues to the college and university, and, finally, to the graduate school. The realms of scholarship, the upper reaches of advanced and highly individualized education, elsewhere in the world restricted to the privileged and upper cast few, in this country are the right and privilege of all. In the democratic sense, the graduate school is a public school, and students have thronged its registration lines.

This growth of graduate study, however, has been marked by more than a sheer increase in the number of students. There has been an equally startling increase in the number of subject matter areas offering work for advanced degrees. In the early history of graduate work, about the only profession open to holders of advanced non-professional degrees was that of teaching, hence the major areas of graduate work were those of the subjects conventionally taught in secondary schools and colleges. But with the growth of knowledge, and an increasing demand for trained people to serve in industrial organizations, government agencies, and as specialists in both the natural and social sciences, college and university work has seen a proliferation of courses and new areas of study. Inevitably, each new department, once established as a part of an educational insti-

tution, looks forward to "offering graduate work." Further, as the total amount of human knowledge grows, standardized elementary, secondary, and college curricula can absorb only so much within the existing framework. The rest flows out into new courses, new departments, new curricula; and inevitably, out at the top, in graduate work.

Not always, however, did these new subject matter areas find a ready welcome to the sacred precincts of the graduate school. Far more commonly, the newcomer gained recognition as a possible area of graduate work only by demonstrating its similarity to the departments and disciplines already offering courses and research for advanced degrees. The graduate work of the newcomer tended to be scrutinized and recognized in terms of its conformity to the research problems and patterns of those already established;¹⁰ a justifiable and convenient procedure. An unfamiliar area may be appraised most readily and accurately by the standards and procedures of cognate and similar disciplines.¹¹ Subsequently, in a continuing process, each new subject matter area not only extends the range and diversity of recognized graduate research problems and methods, but also serves as a basis of appraisal of still additional areas. Thus do graduate schools encompass ever wider areas of knowledge and investigation.

Modern Graduate Study. The growth of graduate study, in diversity of subject matter areas and in number of students, has brought problems and worked some changes in the concept and administration of graduate programs. Most obviously, the larger enrollments have increased the demands on faculty time, on libraries, on research facilities, and, inevitably, on educational budgets. It is easy to assume, as some do, that these increased demands have resulted in a lowering of the standards and ideals of scholarship. Such assumption, however, seems unwarranted; there is no necessary conflict between numbers and standards. In general, this growth in number of students has seemed to result in larger and better trained faculties, and in increased stimulation to scholarship on the part of both students and instructors. With their rigorous demands for undergraduate preparation and scholarship, and realistic standards of admission, particularly to doctoral study, many graduate schools have found real increases in the calibre and scholarly activity of the graduate students they carefully select from the more populous ranks of undergraduates.

Accumulating numbers of students and areas of study, however, are not the only changes evident in modern graduate work; objectives and programs have undergone some modification. As the master's degree has become a requisite for employment in more fields of activity, programs leading to this degree have tended to concentrate on the students' acquaintance with subject matter for improved performance in his contemplated occupation. The essential nature of the master's degree thus seems to be changing from that of a research degree to a sign of knowledge and competence beyond that achievable with a bachelor's degree. With this decreased emphasis on training in research, the formerly universal requirement of the master's thesis is being replaced by seminars, compre-

hensive examinations, and similar tests of the student's mastery of the knowledge of his field and of his ability to work on the conceptual level. This change in the use and purpose of the master's degree, and its immediate value in the job market, have tended to establish it as a terminal degree, perhaps more closely related to the undergraduate program than to the doctoral programs undertaken by slightly less than ten percent of those who achieve the master's diploma.¹² On the whole, this separation between the first graduate degree and the higher degree seems to be a useful and intellectually salutary procedure. Both professional competence and training in research and scholarship seem to benefit therefrom.

Also in accord with the changing times, new advanced degrees have appeared to represent new subject matter specialties and more specific preparation for later activities. The most common, but by no means the only, examples of the newer degrees are the specialized and designated master's degrees¹³ and the Doctor of Education. In general, these more recent awards for advanced study remain within the purview of the graduate school, though occasionally those more strictly professionally oriented are offered by an autonomous department or school of the university.

This establishment of new degrees to represent special programs of work, in response to specific educational needs, has operated to continue the long established concept of the non-designated Master's and the Doctor of Philosophy as liberal, non-professional degrees with continued emphasis on research. Yet even slight acquaintance with graduate work is sufficient for awareness that differences have appeared in recent years. There seems to be considerable warrant for the statement that graduate work has enlarged somewhat its earlier sole aim to train scholars to conduct research. Forty years ago graduate work existed to train the student for increased competence in the advancement of knowledge by his own efforts. At present, the master's as a terminal degree, is but little if at all, concerned with research in the classical sense. The doctor of philosophy, while still basically and essentially a research degree, is conferred upon the successful completion of programs of study and research which aim, as always, to train students to do research and to advance knowledge in their chosen fields, but also to serve mankind, each one in his own area.

Summary. Graduate study, based on resident study and research, has provided rigorous and highly stimulating opportunities for American scholarship. The growth in numbers, expansion of subject matter areas, and particularly the seeming changes in the purposes and programs of advanced degrees are "viewed with alarm" by some; by others they are accepted as inevitable, and even desirable, evidence of academic adaptation to changing times.¹⁴ However administered, scholarship and outstanding intellectual achievements are determined by the standards of the graduate school; guaranteed, in the last analysis, by the integrity of the men who offer the courses and supervise the research.

SPEECH AS A FIELD OF GRADUATE STUDY AND RESEARCH

The disciplines and areas of knowledge now gathered under the generic term, speech, are of long existence. Rhetoric, theatre, and reading aloud appeared with man's first organized knowledge; elocution and linguistics, though more recent, still appeared nearly a century before the modern field of speech. It is only pointing out the obvious to mention that the early study of the principles of oral expression was contemporaneous with, or even preceded, the very beginnings of those subject matter areas in which "graduate work" was first and most firmly established. Yet speech, as the record all too clearly indicates, has but recently entered the sacred precincts of the Graduate School.

Backgrounds and Sources

Any student in the field of speech who has gone beyond the basic courses is at least partially aware of the long accumulating knowledge concerning human communicative processes. The graduate student should be cognizant, likewise, of the changing concepts of the nature of speech which have fostered modern graduate study and research. The following brief sketch of the traditions and areas of knowledge which have contributed to the modern discipline will add to each student's appreciation of the vast store of accumulated knowledge which is his to possess. It will heighten his awareness that academically established "Graduate work in Speech" arrived at the earliest possible moment in the changing pattern of educational and philosophical views.

Rhetoric. The Rhetorical Tradition,¹⁵ involving the principles of oral and written discourse, was given its early formulation by the Greek Logographers and Sophists in the fifth and fourth centuries B.C. Later Plato, severely critical of the Sophists, suggested the broad outlines of a more constructive system of rhetoric. During the succeeding centuries, this ancient world of Greece and Rome made three outstanding contributions to the study of rhetoric and its accumulated knowledge; studies and knowledge still a part of the modern field of speech. Aristotle's *Rhetoric* (384-322 B.C.), the first systematic treatise, was written from a practical point of view with its emphasis on audience analysis and proof; seemingly the first "what to do, why, and how to do it" treatise. With a different view, Cicero's writings, of which *de Oratore* (55 B.C.) is probably the most significant, combined the viewpoints of the practical orator and the rhetorical theorist. A third contribution, a summary of classical Greek and Roman rhetoric, written from the viewpoint of the teacher, appeared in Quintillian's *Education of the Orator* (cir. 95 A.D.).

Familiar as may be the knowledge concerning speech bequeathed to us by these three pioneer rhetoricians, and useful to today's scholar or teacher, these classical formulations differ, in basic ways, from modern views. Most obviously, training in the principles and procedures of discourse was

limited to the selected few, with rhetorical skill regarded as a means for the exercise of philosophical and political leadership. Less obviously, but involving even more basic differences in premises, oral expression was a special area of performance, but little related to other intellectual and cultural activities. Rhetorical knowledge and proficiency constituted a desirable and effective accomplishment for the educated leader. Skill in dialectic and advocacy, however, represented an addition to, but was not a part of, the educative process of the times. Skill in oral discourse was a means of displaying knowledge previously acquired through study and contemplation; it was not, as today, also a means whereby knowledge is acquired.

With some variations, the long period from the first to the fifteenth century, A.D., continued the view of rhetoric as the tool of dialectic, serving for refutation, or to display or project knowledge. A sophistical emphasis was predominant, with an interest in form and style. Though the work of some of the Church fathers, especially St. Augustine in the fifth century, renewed the emphasis on proof in accordance with the balanced Aristotelian view, the general interest in style and declamation was not lessened. During the fifteenth century, however, the rediscovery of many of the ancient works brought a Renaissance revival of the traditions of Greek and Roman oratory, to re-establish the classical influence on the works of the succeeding centuries.

Though the first books on rhetoric written in English, Leonard Cox, *The Arte or Crafte of Rhetoryke* (ca. 1530) and Thomas Wilson, *Art of Rhetorique* (1553), were essentially classical, with the first translation into English of Ramus' *Dialectica Libri Duo* in 1574, classical rhetoric was eclipsed for approximately a century. His reduction of rhetoric to style and delivery and his treatment of proof (invention) and organization (arrangement) as parts of dialectic were strongly influential, in Europe and America, till late in the seventeenth century. A growing opposition to this seeming arbitrary division, however, stemmed from Bacon's re-interpretation of, and renewed emphasis on, classical doctrines, especially those of Plato and Aristotle. In his reaction against stylistic and Ramistic rhetoric, and his own discussions of rhetorical theory, Bacon provided the early signs of a modern theory of communication.

In general, the later rhetoric of the eighteenth and nineteenth centuries continued the classical doctrines. While some writers of this time used the term rhetoric to include both oral and written discourse, the student may well discern a constant tendency to separate speaking and writing, with a consequent emphasis on the content and composition, and increasing neglect of the art of delivery. Among those influential in this division, Blair (1783) slanted rhetoric toward literature and the fine arts, and Whately (1828) emphasized logical proof and argumentation while being severely critical of elocution. Late, such rhetoricians as Adams Sherman Hill of Harvard (*Principles of Rhetoric*, 1878) and John F. Genung at Amherst (*Practical Elements of Rhetoric*, 1886) supported the limita-

tion of rhetoric to written composition, believing that oral discourse should be taught separately, if at all.

These and other influential rhetoricians successfully emphasized the classical view of oral expression as a skill, related only incidentally to the speaker's knowledge and information. Oral expression was a means of displaying knowledge; but knowledge itself was acquired by the study and mental discipline provided by established educational curricula. In terms of the basic rhetorical and educational premises of the nineteenth century, therefore, study of the speaker's text and attempts to emulate its virtues were accepted educational activities, but observations of the speaker's oral expression, and attempts to profit thereby, remained alien to the curricula of the eighteenth and nineteenth centuries.

Though these centuries brought increased interest in rhetorical study and additional teachers and courses to the colleges and universities, much more marked was the concurrent increase of student interest and participation in extra-curricular forensic activities. These demonstrations, programs and contests, in terms of the percentage of all students involved, reached an all time peak in the period from 1840 to 1860. Yet this attention to delivery in intercollegiate debate, oratory, and declamation outside the classroom merely emphasized the view of speech as a skill, neither a part of, nor of use in, the educative process.

The rhetorcial knowledge accumulated through two thousand years of study is a significant and profitable part of modern scholarship in the field of speech. Yet only in this century, and following the changes in psychological and educational theory that are outlined later in this chapter, could the Rhetorical Tradition be merged in the larger concept of speech as a form of human behavior and an integral part of the educative process.

Theatre. The Tradition of the Theatre developed, in the Greco-Roman world, from the Dionysian celebrations, and the dances, songs, and parades of the rites and revels of the time of vintage. From these bands of public revelers of the fifth and sixth centuries B.C., some of the celebrants later became priests, and still later, "actors." The essential change from group dancing and group parading to the early theatre came when one participant separated himself from the group and impersonated a character other than his own. Eventually those who had been the leaders of the singers and dancers became the performers, the actors. Other participants, who could compose new songs, emerged as poets and, later, dramatists,—the writers of dramatic literature. Still other erstwhile participants became spectators, sharing only vicariously in the action, to establish the roles of the writer, the actor, and the spectator.

The first clear record of acted drama is linked with the name of Vespis of Icaria, winner in the first tragedy contest in the year 535 B.C. His chorus would seem to indicate the establishment of the theatre as an event or performance, with the general public participating only as spectators. The addition of the second actor by Aeschylus, and the third by Sophocles,

lessened the role of the chorus and emphasized that of the actor. Originally the acted portions of the play were considered as interludes, with the dancers and chorus carrying the main design. With additional actors, however, the connected episodes gradually took on significance as plot, to establish acted and spoken drama. From Aristotle, one of the first great authorities on drama, as he was in the field of rhetoric, who two centuries later assigned the origin of tragedy to the leaders of the dithyramb with comedy stemming from those who led off the phallic songs, the student may infer the separation of the organized performance from the general public activity of celebrations and festivals. Theatre, like public address, was a performance, with an actor and an audience; its knowledge and skills were the privilege of the selected few.

Subsequently, theatre, like rhetoric, increased and stabilized the cleavage between its written and its spoken forms. Throughout educational history, as literature, drama has been accepted generally as a part of the educational scheme and recognized as a constituent of the liberal arts curriculum. The other portion of the basically indivisible whole, acting and its associated arts and skills, however, has been admitted only recently as a part of the educational program. Study of the drama, as recorded in manuscripts and books, was education; study of the means of transporting the play from its written pages to life on the stage represented a non-intellectual type of activity and training, apart from the curriculum.

There is little evidence of play production in American colleges prior to 1750, due, in considerable part, to the traditional Puritan opposition to the theatre. With no apparent lessening of this opposition to the professional theatre, however, collegiate dramatics increased considerably during the latter half of the century, with the performances taking several forms. As "academical exercises," under rigid faculty control, classical plays were used to stimulate interest and learning in Latin. Commencement plays are noted in the records of the time, and some of the early literary societies presented numerous performances.

Following the Civil War, student-produced Greek, French, and German plays became more common, particularly, in the last two decades of the century, with the faculties of the various language departments being the instigating forces. The foreign language play, deemed useful in instruction, was closer to the curriculum than any other form of college dramatics, though its educational value stemmed from its use as an aid to language learning. Doubtless these classical and modern language plays, associated with recognized departments of instruction, helped to make acted drama academically acceptable, and fostered the later merger of dramatic literature and dramatic production into the educational theatre. In addition, this use of "play acting" as a part of regular class room instruction was a clear forecast of the twentieth century concept of speech as a means of learning as well as a means of expressing previously acquired knowledge.

Interpretation. Oral Interpretation, in the sense of reading aloud, has

a less precisely defined history than other academic disciplines. Conveniently, interpretation as an art and as a field of study in its own right, may be described as being initiated by the poets of ancient Greece who gathered to read their works in public competition. But long before the great festivals of the fifth and sixth century B.C., the stories of the siege of Troy and the wanderings of Odysseus were told by minstrels who traveled from city to city and court to court. Story-tellers and the reciters of epic poetry have existed since the early days of human communication, and before the invention of writing, approximately 4000 B.C., the oral interpreter was the recorder and the disseminator of history, tradition, and man's accumulated knowledge.

Ten centuries before his use of metals, primitive man gathered in clans and tribal communities. Following the Food Producing Revolution (c. 7000 B.C.), the resulting communities varied the monotony of herding and work in the fields by assemblies, celebrations, and feasts. At these gatherings the bards chanted or recited legends of the past, stories of the chief, tales of their own invention. As "the first great artists of the ear," they found and improved the rhythms, alliterations, and other possibilities latent in language; they did much to elaborate and fix grammatical forms. Not only did these bards mark a new step forward in the power and range of the human mind, and enable man to project his thoughts to time before his birth and after his death, but they played a large part in that development of spoken language which was the greatest of all the human advances made in Neolithic times. These bards were living books, makers and preservers of a new and more powerful tradition in human life. Through their use, language became as beautiful as it is ever likely to be. Oral interpretation, as a vocal presentation of poetry, story, and drama, is identified with man's earliest use of community language.

With the development of written symbols, however, the scribe became the recorder of legends and histories; stylus, pointed reed, brush, and chisel, replaced the human voice and memory in the recording of man's thoughts and actions. Later, as philosophers and dramatists, orators and poets, recorded the results of their work in manuscript, the oral interpreter became increasingly a performer for special occasions; a reader presenting written literature to an audience.

With a diminishing role in the storage and dissemination of knowledge and tradition, the oral interpreter, no longer a "living library," was fused, and confused, with his fellow performers, the orator and the actor. By the fifth or sixth century, B.C., oral interpretation had merged with rhetoric, retaining slight, if any, identity of its own. As performance, the bards flourished for long after the invention of writing, surviving as minstrels into the Middle Ages in Europe. Public reading for the special occasion, however, like rhetoric, was separated from the educative process, and was subject to the neglect and disapproval of the study of delivery that occurred in the all embracing Rhetorical Tradition.

These three broad areas of human knowledge and activity, rhetoric, theatre, and oral interpretation, tributary to modern speech, developed with the scholarship of the early Greek and Roman civilizations. Simultaneously these early philosophers likewise established theories concerning man and his activities that have structured succeeding views of the nature of speech. The speculatively derived concept of the human being as possessing a "body" and a "mind," for instance, and the later definition of education as the "training of the mind," inevitably separated knowledge, as acquired by the mind, from expression, as achieved by the body. With the *psyche* and the *soma* as distinct entities, the duality of knowledge and expression precluded any study of speech as "total behavior." Not even the substantial contributions of the more recent areas of research, *elocution*, *phonology*, and *linguistics*, could bring "research in speech," in the modern sense, within the scope of scholarly imagination.

Elocution. Elocution, as a distinct area of study and teaching, began in England in the eighteenth century. In essence, the Elocution Movement was a renewed emphasis on *pronunciation*, the fifth of the classical divisions of rhetoric. It was fostered by considerable dissatisfaction with the speaking of the time and a growing realization of the value and need for effective delivery. Additional impetus may well have been given by the continuing academic tendency to study rhetoric, drama, and poetry primarily as written literature. Though frequently and unfairly ridiculed by modern critics as "arty" and superficial, this study and teaching of delivery tended to restore to oral expression something of its classic status. With this shift of attention from manuscript to speaker, many of the elocutionists adopted an observational and descriptive method of study, thus bearing closer resemblance to the scientists of the time than to their rhetorical colleagues.

This concern with delivery, to which Mason gave the title "Elouction" spread to the United States late in the eighteenth century. Its rapid growth was caused, in part, by the increasing public demand for orators, ministers, lecturers, and actors, of the nineteenth century.¹⁶

The cultural and educational conditions of nineteenth century America clearly were favorable to the elocutionary movement, and considerable interest in elocutionary training appeared at all educational levels. New and separate courses for speech training were listed by a number of universities, while others welcomed the itinerant teacher to supply the newly recognized need for instruction in delivery. By the middle of the century, however, the academic welcome was distinctly less hearty; increasingly the instruction in elocution was relegated to the private schools of expression, and to part time teaching by actors and public readers and lecturers.¹⁷

This loss by the elocutionary movement of its never too extensive place in educational curricula popularly is explained by its development of artificial and exhibitionary techniques. Yet, discounting the antics of a few extremists, teachers of elocution provided instruction and training

which accorded with the contemporary standards and style in speaking, reading, and acting. Basically, the role of elocution in the evolution of the modern field of speech was limited by the still dominant mind-body dualism, and the consequent separation between mental knowledge and bodily expression. Through his concern with delivery, the elocutionist was excluded from the realm of education as it was then defined.

Modern knowledge concerning speech, however, owes a considerable debt to the elocutionists. Interested in delivery, they strengthened the awareness of the role of the speaker and his "physical" expression in the communication of "mental" content. Modern text books are well supplied with information and teaching methods derived from this early application of scientific observation and description to the study of speech behavior as an addition to the more widely employed rhetorical and critical examination of the printed page.

Phonology. Phonology, as the study of the structures and processes involved in voice production, developed through the studies of the elocutionists and the contributions from scientists of related areas. The first comprehensive organization of vocal principles appearing in American elocution was the *Philosophy of the Human Voice* (1827), by Doctor James Rush. In this book Rush's aim was to apply medical science as it was known to him, to the physiology and neurology of voice production. Though known now only as an historical relic, this pioneer work deserves special mention as a landmark in the evolution of the modern field of speech. In spite of later superficial applications of his work and misinterpretations of his purpose, the *Philosophy* established the application of scientific methodology and scientific knowledge to the study and teaching of oral expression. With the appearance of this book, moreover, the study of delivery was extended from those aspects which stimulate and influence the audience to include the physiological and physical principles of voice production.

Phonology, as an area of knowledge, has been less well defined than others listed in this discussion. The study of voice has not been a specialty, but rather a necessary part, or convenient "side-line," of the major work of the elocutionists, physicians, physiologists, physicists, and psychologists, who have contributed to the current knowledge of voice and speech production. Nevertheless, the initial scientific inquiries with their influence on later research in speech and the knowledge accumulated by varied investigators establish phonology as a distinct contributor to modern speech.

Linguistics. Linguistics represents another of those areas of man's curiosity concerning his speech which have contributed to present-day knowledge and theory of oral communication. Originally the term, *linguistics*, was used in a general sense, to include inquiries concerning the philogenesis of speech and language, and also studies of the structures and processes involved in the production of voice and speech by the individual. In this general sense, linguistic inquiries are as old as Aristotle's

consideration of number and case. Yet only during the early part of the nineteenth century were they first regarded and named as a distinct area of knowledge. Still more recently, with the dates depending on the scholarly works selected as critical, this general study of language developed the divisions and specialties listed in the modern literature. Following the typical pattern of specialization, erstwhile "general linguists" now refer to their work as "historical," "comparative," or "descriptive" (more recently, "structural") linguistics.

Seemingly by more than sheer coincidence, the scholarship of this field reflects the basic schism, noted earlier, between written language and its oral counterpart. With the earliest linguistic data coming, predominantly, from the analysis of written language, linguistics was recognized as an academic subject with an acceptable educational content.

Initially, linguistic efforts were concerned with the origin and development of language, both written and oral, rather than with language in use. In accord with the times, much of the work was theoretical, endeavoring to construct all inclusive explanations which ignored the lack of real knowledge concerning the development of human structures and behavior. Consequently, the contributions to speech were few and indirect.

The earliest theories, stated mainly by theologians and philosophers, tended to suggest divine or other supernatural origins, or to depend on such anthropomorphic causes as "forces," "powers," or "faculties." Later, the invention theories of the Empiricists—that language was invented by individuals—directly opposed the belief of the Nativists that language was innate with an always-existent correlation between objects and images as one part, and sounds as the other.¹⁸

While there was no diminution in theory making with the seventeenth and eighteenth century growth of linguistic research, from the middle of the eighteenth century the divine and supernatural theories were replaced by more naturalistic views, marking the beginning of the search for, and use of, observational data.¹⁹ Moreover, these later theories tended to be less speculative, but attempted to unify and explain the data accumulating through widening scientific investigation by linguists, biologists, philologists, and psychologists. Any extensive "Who's Who" of the many contributors would be out of place in this resume of one of the areas tributary to speech. Yet no graduate student, or his instructor, can fail to be pleasantly stimulated by the range of interests and knowledge contributing to linguistics, and hence to present-day graduate study and research in speech. The philosopher, Locke (179?), the political economist, Adam Smith (1792), psychologist and philologist, Max Muller (1863), the psychologist, Wundt (1897), illustrate the range of those who added the lore of their special areas to that of the ever more populous field of linguistics.²⁰

In comparison with rhetoric and theatre, phonology and linguistics are recently defined areas of study, appearing only with the increased attention

to delivery and style of the nineteenth century. The mass audiences of that time, and the increased demand for speech performances brought forceful realization of the crucial role of vocal and gestural effectiveness, and highlighted the woeful ineptitude of many ministers, orators, and actors. Well aware of the mounting evidence that the needed skill did not follow automatically from rhetorical and dramatic knowledge, the elocutionists and some rhetoricians, with the early phonologists and linguists, turned to a study of the structures and processes involved in speaking. Observing the speaker in action, and borrowing knowledge from their scientific colleagues, these later workers established the beginnings of the science of speech.²¹ Even in these more scientifically oriented areas, however, only the acquisition of knowledge concerning the structures and the physiological and acoustical characteristics of speech was regarded as educational; the application and practice of this knowledge was not yet a legitimate function of an academic institution.²²

THE MODERN FIELD OF SPEECH

The term, "The Modern Field of Speech" implies more than mere recency. It is a fully warranted label for a recently organized and recognized field of knowledge dealing with all aspects of human communicative behavior. The title refers to a body of recently derived information and views concerning the nature and educational significance of speech. Modern also are the new hypotheses and methods of research so amply illustrated in this text, and the accelerated accumulation of knowledge, that have been the more overt signs of a new subject matter area.

As the graduate student has been discovering, the past centuries have accumulated a vast store of knowledge and theories concerning all forms of oral communication. Each age has produced views of the proper content and construction of speeches and plays, and beliefs concerning the purposes and modes of delivery. Why, then, emphasize the "modern" beyond the mere fact of its recency?

With all the study and accumulation of knowledge, until recent years, the basic concepts of the nature and function of oral communication, like other areas of knowledge, were structured by the theories of man and his physical world held by the early scholars who first codified the principles of rhetoric and drama. In their thinking, the universe consisted of "stuff" which was "in motion." This naturalistic belief in the duality of matter and motion, which conformed to the evidence of the senses, led to the partition of the human being into a material *soma* and a non-material *psyche*. Unmodified through two millenia, this early body-mind dualism, established and continued to support a separation between thinking and action, and divided knowledge and ideas within the "mind" from their physical expression by the "body."

Though inner thought and outward expression were supposed somehow

to be related, and numerous psychologists suggested explanations of their interaction, they remained distinct entities to frame the concepts of the nature and content of education as developed in the schools and colleges of the Christian era. With the premise of dualism accepted, education perforce was defined as the "training of the mind," or "mental discipline," with an inevitable separation of the subject matter knowledge acquired by the mind from any skill in expression or performance achieved by the body. Until comparatively recently, therefore, large areas of the modern field of speech were, by assumption and definition, removed from the field of Education. For the college student of a generation ago, and for his predecessors through the centuries, study and practice in the use of the spoken word was in addition to, but not a part of, his education. Only as literature and as recorded knowledge could rhetoric, drama, interpretation, phonology, or linguistics, be deemed educational subjects.

New Views of Man and His World

Practically within one generation, 1890 to 1920, widening observation and accumulating data completed the contradiction of the long accepted belief in a universe that was dualistic in nature and atomistic in structure and process. Moreover, both the scholarly premise that structuralistic analysis into ever lesser parts was the key to knowledge and understanding, and the axiom that the sum of these parts was equal to the whole, denied by the new findings of modern research.

New scientific discoveries, and new mathematical and philosophical formulations, combined to establish a monistic view of the universe, within which natural phenomena were no longer regarded as aggregations of discrete parts, but total processes. "Organismic" logic, the "Field Theory" of the physicist, and the neo-Euclidian axiom that "the whole is greater than the sum of its parts," became familiar phrases in scientific discussions. The subsequent rapid spread of this monistic and organismic view to biology and psychology, and later to educational theory, provided background and impetus for the modern concept of speech as a behavior of the whole organism.

Influence of Cognate Areas. Psychology, following the pattern of the Greek philosophers, had been concerned with the "mind" and defined its function as the "study of consciousness." Psychologists, only recently distinguished from philosophers, were occupied with a search for universal principles, for general "laws" that would explain all mental activity. In 1869, however, Galton's *Hereditary Genius* provided an impetus for the study of individual differences which was continued in Wundt's laboratory studies of individual reaction times (1879), in the initial study of variations in human abilities by Cattell and Farrand.²³ The former speculative and introspective study of the mind and its faculties gave way to the new interest in the capacities and behavior of the individual. Soon Watson's *Psychology from the Standpoint of a Behaviorist* (1919),²⁴ though more

of a statement of method than a systematic psychology, followed the monistic trend in the natural and biological sciences to abandon the psychological dualism of body and mind. Yet, scientifically oriented in its monism, behaviorism still followed the structuralism and atomistic analysis of conventional psychology. Gestalt psychology, however, announced in Germany in 1912²⁵ was both monistic and organismic. This configurational view of human behavior conceived of the human organism as a whole, and stressed the totality of any experience. Whether a solar system, a human being, or a speech, the whole is greater than the sum of the parts. The rapid dissemination of this configurational and organismic view, and its fusion with current experimental data, established the psychological basis for a new concept of speech; speech as a form of human activity involving the total organism within the environment as a whole.

Concurrent with these changes in psychology, the greater use of observational research in social psychology and sociology provided a new estimate of the social and interpersonal aspects of man's existence and behavior. As one instance of the changing beliefs, the presumed role of instincts in human behavior came under vigorous attack by social psychologists,²⁶ sociologists, and economists. As this doctrine of instincts, as surviving from earlier speculative and qualitative psychology, failed to meet the test of continuing objective research, learning and adaptation became major factors in the development of human behavior. Capacity and need to learn were seen as characteristics of the human organism.

Meanwhile, sociologists as well as psychologists were demonstrating more clearly not only that the infant learns to be a human being in a social situation, but also that survival and development are structured by interpersonal relationships. With growing study and recognition of the multitude and complexity of personal interactions in a social order, speech was viewed, increasingly, as a medium of human cooperation and adjustment. Laguna²⁷ for instance, declared that speech was neither expression nor communication, but social cooperation and control. From this view, speech is not only the core of psychological and behavioral growth, but also a tool for survival and development.

These modified psychological and sociological views, however, were but part of the accumulation of knowledge and altered theory that prefaced the modern field of speech. Throughout the preceding nineteenth century, the earlier stated doctrines of Rousseau,²⁸ Pestalozzi,²⁹ and other educators, that education should be pupil-centered rather than curriculum centered, were working changes in the established views of the nature and means of the educational process. Increasingly education was believed to exist for the pupil and not for the support and employment of a conventionalized and standardized curriculum. Rather than pouring a certain body of preselected knowledge into the "mind" of the student, the educational process should provide knowledge of the world, and ability to survive in that world.

An additional change in educational theory, of considerable influence on speech, occurred with the denial of the mental faculties—so long a premise of educational theory and the basis of the prescribed academic curriculum. The monistic view in psychology and the experimentally discredited “transfer of training” changed the process of education from that of the “training of mental faculties” and “mental discipline” to a more organismic view that education may be achieved only through the experiences and activities of the pupil himself; he learns what he does. With this view of the educative process, that the student learns through his own activity, through his responses both to his texts and to the world about him, speech was recognized as a *means* of education; no longer merely a way of expressing educational attainments, but an essential part of the educative process. Speech was established as a means of learning.³⁰

Speech as an Academic Subject. With the twentieth century, workers in those “cognate areas” were more aware of the existence and role of man’s symbolic noise making; speech was involved in numerous processes and activities under their scrutiny. The study of speech was no longer confined to, with greater historical accuracy, relegated to, rhetoricians and elocutionists. The new findings, accumulating in various research areas, combined to outline a concept of speech as a form of human behavior, involving the entire organism; a behavior used in varied ways. As behavior, speech served as a means of communication; also as a convenient form of either stimulus or response in interpersonal relationships, useful in establishing social control and social adjustment; as well as being a significant part of the educative process.

“Influences”, however become operative only through the activities of individuals. The modern field of speech as an academic area of study and research was established by the men who gave the instruction and wrote the books. They were influenced, undoubtedly, by the information from adjacent areas, yet their own observations and creative thinking produced concepts of speech which frequently received full support from other areas only after a noticeable lapse of time.³¹ Indeed, the founding of the National Association of Academic Teachers of Public Speaking, in 1914,³² represented a concept of speech as an area of academic instruction and research that not only had limited support and acceptance by its neighboring disciplines, but was also a radical departure from the accepted views and tenets of the majority of their fellow workers. The founders of this Association did not regard themselves as artists, performers, actors, or orators; they were teachers and academes. They were members of college and university faculties who were convinced of their place in education, and the need for the knowledge they possessed, as the word *Academic* in the name of the Association pointedly demonstrated. Their choice of a new association rather than affiliation with an already existing organization, The National Speech Arts Association,³³ was clear indication of their departure from the beliefs and practices of their fellows.

Literally, at the time of the founding of this Association, there were no teachers of speech. There were some high school and college teachers of public speaking, a few teachers of drama—most of them offering their courses in departments of English. There were also elocutionists, instructors in the speech arts, professional speech and acting coaches, and public entertainers. Nor had the speech correctionist as yet emerged as a specialized teacher within the educational area. Speech correction was a minor occupation of physicians, psychologists, elocutionists, and teachers of English. Any use of the word “speech” in its generic sense would have been inappropriate.

Yet such was the surge and impact of the new ideas that “Departments of Speech,” offering instruction in all phases of speech activities soon appeared in college and university catalogs, and at its third convention, in December, 1917, the National Association was renamed The National Association of Teachers of Speech.

Graduate Work in Speech

No student of academic history can be unaware that the modern field of speech emerged as a distinct subject matter area during the Period of Standardization of graduate work in the United States. Equally obvious is the coincidence of the first graduate programs “in speech” with the Period of Expansion, in terms of areas included and students enrolled.

Though the “year of origin” is difficult to establish precisely, the year 1920 may be selected to mark the beginning of graduate work in speech. Although the first master’s degree in speech was granted in 1902,³⁴ the next eighteen years added only seventeen others for a total of eighteen by 1920. So, with eighteen master’s degrees in speech, and the number soon to increase, it is possible to consider graduate work started, though the first Ph.D. in speech was still two years in the future. By 1925, five teachers of speech were able to write “Ph.D.” after their names, but only one of these degrees (1922) was given major work in speech. The year 1926, however, added three Ph.D.’s all in speech. By 1930, graduate work was well under way with 142 master’s and six doctor’s degrees conferred in that year; a grand total of 558 M.A.’s and fifty-eight Ph.D.’s,³⁵ at the close of this arbitrarily established decade.

Such leisurely growth, however, was not for long. The latest “Index of Graduate Work,” August, 1960,³⁶ lists 1,100 graduate degrees conferred in the immediately preceding school year: 933 master’s and 167 doctor’s. From a total of eighteen master’s degrees and no doctor’s in the conveniently located beginning year of 1920, to the most recent total of 15,183 master’s and 1,776 doctor’s constitutes vigorous growth, and augurs well for the future scholarship and vitality of this academic area.

This lusty development of graduate study in speech undoubtedly profited from the expansion of all graduate work. But an expanding environment is no assurance of growth in any included part. Graduate study in speech

has been impelled by the complexity and extent of its subject matter and by the vigorous scholarship of its students.

Advanced study and research in speech have relied on information and methods from neighboring areas; but they, in turn, frequently have encountered speech problems in their own investigations; the universality of speech behavior ignores departmental boundaries. Quite likely the close affiliation of early graduate programs in speech with other academic departments led the early supervisors of graduate work to be more critical of all research, particularly their own. Working in an area just emerging as a recognized discipline, they "went the second mile." Yet this very association with other fields emphasized the uniqueness of speech problems and stimulated an unwillingness to borrow research methods from other disciplines without careful scrutiny of their appropriateness to their own distinctive problems. The preceding pages of this text clearly indicate not only that speech scholarship has profited from the modification and use of the methods of other areas but, even more significantly for the future, has successfully accepted the challenge of stating its own problems and devising new methods for its own expanding research.

Yet by no means did all of the urge to scrutinize and appraise research methods come from this contact with the other disciplines. To give credit where it is due, the founders of the National Association of Academic Teachers of Public Speaking, were well aware of the need for research. The existence of the word "Academic" in the title of the Association signaled the separation from the previous extra-curricular and expressionistic views of speech, and the establishment of an educational field. In name and belief these early members were academes, dedicated in teaching and research. None had a doctor's degree at that time, for the first Ph.D. in speech was still seven years in the future and the relationships of "Public Speaking" to the then degree granting disciplines were still to be established. But the serious emphasis on research, in convention discussions and in published articles, is clear.³⁷ The vigor and variety of research in the modern field of speech owes much to the pioneer scholars and students who stressed the opportunities and need for research, for research in *speech*, rather than a duplication of investigations common in adjacent areas of knowledge.³⁸

From the stature and scope of graduate work in speech, the student may assume that, once started, all this happened quickly and more or less automatically. Graduate work in speech, however, has been no exception to the historic process of scrutiny and appraisal by comparison with the disciplines already included. Master's programs, and particularly doctoral study, were recognized and admitted mainly on the basis of the similarity, in courses and research, to such areas as English, history, psychology, or the natural sciences. Speech, unlike many of its predecessors, however, was not admitted as a whole. The dissertation titles listed in Knower's first "Index"³⁹ indicate the differing areas of the first doctoral researches at the six universities listed, and strongly imply their resemblance to studies

in varying cognate disciplines. Later editions of this continuing "Index" and Dow's "Abstracts"⁴⁰ support the belief that the "first degrees in speech" in the more than 20 subsequently listed were no different. Each institution has had its "entering wedge," determined by local relationships. And let no graduate student in any facet of speech assume that this process has disappeared from the academic scene or that, as an initiator of graduate study at some growing institution, he will escape the historical pattern.

And Now

After two millenia of fragmented study and disputed educational significance, a scant half century has established speech as an academic field of research and instruction. Viewed as a way in which human beings behave, adjust, and learn, speech is a curricular part of all educational levels.

Inheriting the store of information recorded by the preceding tributary traditions, modern speech knowledge has grown with the expansion and diversification of these disciplines beyond the possible imagination of any nineteenth century scholar. Extensive additions have come, also, from the texts and *Journal* articles that, departing rhetoric and elocution, have viewed speech as a form of activity and learning.⁴¹ Meanwhile, newly discovered inter-personal, social and educational patterns and processes, and the technological means of mass communication, have prompted broadened study of the functions and techniques of communicative behavior.⁴²

The scope of the present knowledge, and the extent of today's search for the knowledge of tomorrow, are evident in the variety and flexibility of the methods and the illustrative studies cited in this text. As heir to the past, the graduate student of today may use, according to his needs, historical, critical, esthetic, or scientific information. In the search for the knowledge of tomorrow, the twelve hundred graduate students likely to receive their advanced degrees in speech during 1961, in company with some 17,000 of their predecessors, are employing observation, reasoning, and critical appraisal; through speculation and imagination they are projecting new forms of expression, with new content and meanings, seeking esthetic unity and verity. From courses, reading, and discussions, the graduate student receives constant testimony to the breadth and vigor of the scholarship in which he has an active part, the study of this characteristically human behavior, so complex in its function and use, yet so simply labeled, "Speech."

And Then

What of the future? When the graduate student, degree achieved, turns to his career? No one is "tall enough to peer over the far horizon." Neither the growth of human knowledge, nor the areas of "break through" or application can be predicted. Yet the general nature of the future has been forecast in the earlier pages of this chapter. The enlarging demand for men and women with the education represented by advanced degrees is not

likely to diminish in the foreseeable future. The shortage of teachers with advanced degrees, for instance, promises to become even more acute. Eyeing the imminent expansion of college enrollments, educators estimate that appropriate faculty appointments will require a four to five fold increase in the annual supply of doctor's degrees within the next decade,—if the colleges and universities are to sustain the present standards of instruction and research on the undergraduate and graduate levels.⁴³ Similar estimates apply to the master's degree as the indication of a more universally required minimum preparation for teaching at the secondary and upper elementary levels. Directly competitive, and even larger potentially, is the non-academic employment of those with advanced degrees. Military and civilian programs of the Federal Government, business and industrial organizations, social and welfare agencies, all besiege the graduate school to staff their expanding research and administrative activities.

Forecasts of future degrees, however, are expressed in lesser figures. "The continued increasing demand for graduate trained teachers and the increasing proportionate utilization of individuals with graduate training in the total work force have created a demand for advanced degree personnel which generally cannot be met with our present rate of 'through put'."⁴⁴ Graduate work can be expanded neither quickly nor indefinitely. Established admission requirements and the mounting cost of higher education limit registrations; not all entering students survive the standards and rigors of graduate study. Additional graduate programs are approved by the accrediting agencies only at institutions already possessing the necessary facilities for advanced instruction and research. Existing graduate schools are locked in step with financial support, libraries, laboratories, and faculty appointments. Academic integrity and realism, therefore, rather than conservatism, prompted the Committee on Policies in Graduate Education to predict a mere doubling of the annual rate of conferral of advanced degrees for the decade following 1960.⁴⁵ Clearly, the widening gap between the demand and the foreseeable supply, however much it may furrow the brows of would-be employers, augurs well for any graduate student who has completed the requirements for an advanced degree.

For the graduate student in speech, no more than a brief introduction has been written for the eventual history of his field. Few are the academic disciplines that do not encounter questions concerning the nature and use of speech; all use it in organizing their research and in generalizing and expressing their obtained knowledge. Undiscovered as yet are the optimum role of speech, in its varied forms and uses, as a means of human learning, and the application of this vital factor in the educative process by the teacher of the future. Current statistics carry a strong hint of the ultimate benefit to human welfare and achievement to accrue from yet to be discovered knowledge concerning the deviations and deficiencies of communicative ability, and the wider service of this knowledge to the unfortunate in birth and environment. There are signs that present study of the use of

speech to attain accuracy and understanding in inter-personal and mass communication, and in the sharing of knowledge and cultural traditions, has but glimpsed the surface. Still to be determined is the full potential of this means to mutual adjustment and cooperation between individuals, communities and nations.⁴⁶ Reaching still farther into the future are the first glimpses of the eventual achievement of higher levels of civilization and culture, perhaps even survival, through the discovery and application of new speech knowledge. Emphasis on man's *human*, rather than animal, nature, and his development as a human, are supported by the substitution of the symbolic, cortically controlled and intellectualized, responses of human speech for the primitive and infantile non-symbolic behaviors characteristic of the non-verbal quadrepeds. "Speech reflects the history of all that is past and prophesies all that is yet to be."⁴⁷ The graduate student in speech, whatever his specialty, and where ever he may apply his research skills and his knowledge, is a part of the world of the future.

And you

You may be of either sex, of any complexion. You may be anywhere between late adolescence and pre-superannuation. You may be interested in several phases of speech, or in one, or a sub-subdivision of one. Your presence in the graduate school, however, indicates your profitable use of a favorable environment and your possession of a high level of intelligence, self-direction, and habits of sustained application to the task at hand.

Realize it or not, you have practiced scholarship in your work for this course; a short apprenticeship for a challenging and rewarding career. In your professional life you will read widely, search for new knowledge and understanding, and share your discoveries through texts and articles, and in the class room. You and your class mates are the scholars of the future, needed not only to replace those now growing old in the service, but also to meet the ever-widening demand for research and instruction. The future scholarly vigor of this field relies on your maintenance of the highest standards of performance, not only to merit the critical approval and cooperation of your colleagues, but also to sustain the quality of scholarship deserved and demanded by the field of speech.

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NOTES

1. The influence of economic conditions cannot be overlooked in the history of graduate work. Undoubtedly the economic imbalance culminating in the "panic of The Nineties", discouraged study abroad and thus enlarged the registration in the domestic graduate schools. Similarly, in the twentieth century, the relative prosperity of the United States, with its increasing funds and equipment for research, aided the explosive growth of advanced study and research.

2. Perhaps one of the most significant indications of the development of advanced work in this country was the founding, in 1876, of John Hopkins University, as the first full-fledged graduate school.

3. Probably fortunately, these early planners seemed to be less inclined than some of their more recent successors to find the guiding rule and ready answer to every question in the stock phrase, "we did it this way when I got my degree."

4. Ernest V. Hollis, *Toward Improving Ph.D. Programs*, American Council on Education, Washington, D.C., 1945, 1-2.

5. Depending on the graduate school with which he is registered, the doctoral student may spend anywhere from one-sixth to two-thirds or more of his time in research; the master's program may be all research, or involve little or no activity designated as such. In general, the physical sciences, closer to the Continental university pattern, tend to allot more credit for the thesis or dissertation than do the social sciences, which developed somewhat later and more independently in this country.

6.	Year	Bachelors'	Masters'	Ph.D.'s
	1900	14,018	1,610	342
	1920	38,582	4,321	532

Biennial Survey of Education, 1926-1928, United States Department of Interior, Office of Education, Bulletin, 1930, No. 16, 698.

7. Hollis, *op. cit.*, 21 ff.

8. The well-nigh universal human tendency to feel that any one or any thing "different" is by that token "inferior" must be avoided in appraising the scholar-

ship of another institution, or even the work of another department of one's own university. "Harmony of aim and not identity of conclusion is the secret of the intellectual life."

9. General Population, Undergraduate and Graduate Degrees, 1900-1960.

Year	Population	Year	Degrees Conferred		
			Bachelor's ¹	Master's ²	Doctor's ³
1900	76,212,168	1899-1900	14,018	1,610	342
1910	99,228,496	1909-1910	22,687	2,132	409
1920	106,021,537	1919-1920	38,552	4,321	532
1930	123,202,624	1929-1930	122,484	14,898	2,292
1940	132,164,569	1939-1940	186,500 ⁴	26,731 ⁴	3,290 ⁴
1950	151,325,798	1949-1950	433,734 ⁵	58,219 ⁵	6,633 ⁵
1960	179,323,175 ⁶	1958-1959 ⁷	385,151 ⁸	69,497 ⁸	9,360 ⁸

10. Cf. Hollis, *op. cit.*, 179.

11. Which accounts in large measure for the "piece-meal" beginnings of graduate work in speech which will be outlined later.

12. "Reports of the Committee on Policies in Graduate Education, The Master's Degree," No. 4, *Journal of Proceedings and Addresses of the Seventh Annual Conference of the Association of Graduate Schools*, 1955, 29-33.

13. Typical of the specialized degrees are the Master of Music, Master of Business Administration and Master of Fine Arts; designated degrees combine the conventional letters (usually the M.S.) with the field of specialization, as in the Master of Science in Education, Master of Science in Journalism, Master of Science in Engineering.

14. The likelihood that changes in administration and procedures represent improvement rather than deterioration is quite evident from even a hasty skimming of the annual issues of *The Journal of Proceedings and Addresses of the Association of Graduate Schools*. The cogent papers, substantial committee reports, and the vigorous discussions, by the Deans and their invited guests leave no doubt of the level and significance of graduate scholarship.

15. In this and the following discussions of the backgrounds and development of the modern scholarship in speech, reference is made to the Greco-Roman-European traditions only; the oratory, drama, and poetry, of the rest of the world being too remote to influence the scholarship of the Western World.

16. The increase in speech activities by college students, mentioned earlier, was but a part of a general burgeoning of oratory and acting. With some relaxation of earlier Puritan restraints, and the geographical, social, and intellectual expansion of the time, the general public demanded a wide variety of speech performances, in Fourth of July and Memorial Day orations, political debates, public lectures on political, social, and moral issues, dramatic readers, Lyceum, Chautauqua, and the professional theatre. The need for orators and actors who

¹ "Bachelor's Degrees" includes B.A., B.S., and first professional degrees.

² "Master's Degrees" includes second degrees exclusive of professional.

³ "Doctor's Degrees" refers to Ph.D., Sc.D., and Ed.D., but excludes all honorary degrees.

⁴ *Biennial Survey of Education in the United States, Statistical Survey of Education, 1945-1946*, Federal Security Agency, Office of Education, (1947), 13.

⁵ *Earned Degrees Conferred by Higher Educational Institutions, 1957-1958*, Circular No. 570, United States Department of Health, Education and Welfare, Office of Education, Washington, (May, 1959).

⁶ *Advance Reports, Final Population Counts*, United States Department of Commerce, Bureau of the Census, Washington, D.C., (1960).

⁷ The latest year for which figures are now available.

⁸ *Advanced Report, Survey of Degrees Granted During the Year 1958-1959*, United States Department of Health, Education, and Welfare, Office of Education, Washington, D.C., (June, 1960), 3.

could be heard (without electronic assistance) by large and lusty audiences, was little satisfied by analysis and manuscripts and texts.

17. *Vide*, Mary Margaret Robb, "The Elocutionary Movement and Its Chief Figures," in *A History of Speech Education in America*, Karl R. Wallace (Ed.), Appleton-Century-Crofts, New York, 1954, 178-201.

18. The literature containing these and later theories is voluminous and widely scattered. For a brief summary of views and identification of individuals and their works, *vide* Clarence T. Simon, "The Development of Speech," in *Handbook of Speech Pathology*, Lee Edward Travis (Ed.), 8, 14-15.

19. *The Origin of Languages*, c. 1750, by Jean Jacques Rousseau seems to mark the transition from the theories based on special creation to those with more naturalistic bases.

20. The interested student may find descriptions of the contributions of these writers and many others, with comments and criticisms, in the works of Whitney (1868), Sayce (1883), Sapir (1921) and Stein (1949) listed in the bibliography at the end of this chapter.

21. For historical accuracy this statement must be qualified by the realization that the early rhetoricians, though not now credited as "scientists", were excellent observers and recorders of the behavior of human beings in communicative situations. The inclusion of observational, and in that sense scientific, data in classical rhetoric is quite apparent. Not until then did there appear the separation between rhetorical theory and the knowledge obtained through scientific observations. Just as clear is the fact that some early linguistic and phonological studies were theoretical and speculative, involving little use of observation.

22. Almost ironically, this long neglected and frequently rejected fifth Aristotelian canon not only attracted the first modern scientific study of communicative behavior, but also provided the problems for some of the earliest dissertations to be accepted for "graduate work in speech."

23. J. McKeen Cattell and Livingston Farrand, "Physical and Mental Measurements of the Students of Columbia University," *Psychological Review*, III, 1896, 618-648.

24. Preceded by his "Psychology as a Behaviorist Views It," *Psychological Review*, XX, 1913, 158-177.

25. Max Wertheimer, "Experimentelle Studien uber das Sehen von Bewegungen," *Zeitschrift fur Psychologie*, LXI, 1912, 161-265.

26. The psychological literature of the time is replete with reports of research dealing with the development of human behavior. The following are a slight sample of the distinctive and indicative titles: Dunlap, "Are There Any Instincts?" (1919); Kuo, "Giving Up Instincts in Psychology" (1921); Faris, "Are Instincts Data or Hypothesis?" (1921). In 1920 Kantor averred that, "Human instincts . . . in the adult individual are completely absent." In his 1921 article, Kuo stated, "In the present paper we attempt to deny not only the classifications of instincts, but their very existence."

27. Grace Andrus de Laguna, *Speech: Its Function and Development*, New Haven: Yale University Press, (1927).

28. Jean Jacques Rousseau, *Emile*, Paris: (1762).

29. Johann Heinrich Pestalozzi, *How Gertrude Teaches Her Children*, (1801).

30. The realization of the crucial role of speech in the learning process was furthered by those who were concerned with the education and remedial training of the handicapped in speech and hearing. Deaf children obviously lacked sensory stimulation, but the merely hard of hearing child received relatively little assistance prior to the twentieth century; the first public school speech

correction class appeared in 1908. Through the efforts of speech teachers and instructors of the deaf and hard of hearings as well as psychologists, public school educators rapidly realized the decrease in learning with less than a total loss of hearing and, even more of a revolutionary idea, the detrimental and retarding results of disorders and deficiencies of speech, even the completely neglected so-called minor deviations. The clear demonstration of the need for speech as a means of learning was largely responsible for the rapid growth of public school remedial programs, at public expense, to provide "equal educational opportunity" for the handicapped in speech. Cf. Clarence T. Simon, "Education in Speech and Hearing," in Karl Wallace (Ed.), *A History of Speech Education in America*, Appleton-Century-Crofts, New York: (1954).

31. The necessarily limited pages of this chapter do not permit an account of the new ideas, discussions—academic and human, and contributions of these scholarly pioneers. For increased pride in his profession, and for stimulating reading, the graduate student may spend his time profitably with these chapters in *A History of Speech Education in America*, edited by Karl R. Wallace: Chapter 19, "Some Teachers and the Transition to Twentieth-Century Speech Education," 422-446; Chapter 20, Donald K. Smith, "Origin and Development of Departments of Speech," 447-470; and Frank M. Rarig and Halbert S. Greaves, "National Speech Organizations and Speech Education," 490-517.

32. November 28, 1914, with seventeen charter members, from fourteen colleges and universities:

I. M. Cochran	—Carleton	J. M. O'Neill	—Wisconsin
Loren Gates	—Miami	J. M. Phelps	—Illinois
J. S. Gaylord	—Winona	F. M. Rarig	—Minnesota
H. B. Gislason	—Minnesota	L. R. Sarett	—Illinois
H. B. Gough	—DePauw	B. C. Van Wye	—Cincinnati
Binney Gunnison	—Lombard	J. A. Winans	—Cornell
C. D. Hardy	—Northwestern	I. L. Winter	—Harvard
J. L. Lardner	—Northwestern	C. H. Woolbert	—Illinois
G. N. Merry	—Iowa		

Cf. Rarig and Greaves, *Op. cit.*, 499.

33. Founded in 1892 as the National Association of Elocutionists, it was renamed in 1906, and ceased functioning in 1917.

34. Franklin H. Knower, "Graduate Theses—A Combined Index of Reports of Graduate Work in the Field of Speech and Dramatic Art, XII, 1902-1944," *Speech Monographs*, 12 (1945), 11.

35. *Ibid.*

36. Franklin H. Knower, "Graduate Theses—An Index of Graduate Work in Speech, XXVII," *Speech Monographs*, 27, (1960), 260-262.

37. Volume I of the *Quarterly Journal of Public Speaking*, (1915), (the original title for the present *Quarterly Journal of Speech*), contains the following articles: James Albert Winans, "The Need for Research," pages 17-23, and two reports of the Research Committee of the Association, "Research in Public Speaking," pages 24-32, and "Making a Start Toward Research Work," pages 194-196. Volume II carried "Research Problems in Voice and Speech," by Smiley Blanton, and Volume III, "Suggestions as to Methods of Research," by Charles Woolbert.

38. Ten of the charter members of the National Association of Academic Teachers of Public Speaking were affiliated with institutions that had established graduate programs for the Master's degree in speech by 1926; the three departments that sponsored the earliest Ph.D.'s in speech were headed by members of this group. Of earlier times, and other disciplines, Hollis reports, "An examination of university catalogs shows that graduate instruction in the leading

universities between 1875 and 1900 was in the hands of staff members, a majority of whom did not have the Ph.D. degree or other evidence that they themselves had undergone the discipline of the regimen they were conducting." *Op. cit.*, 18-19.

39. Franklin H. Knower, "Graduate Theses—An Index of Graduate Work in the Field of Speech from 1902 to 1934," *Speech Monographs*, 2, (1935), 1-20.

40. Clyde W. Dow, "Abstracts of Theses in the Field of Speech and Drama," *Speech Monographs*, 13, (1946), 99-121. Annually to date.

41. Walter Dill Scott's, *The Psychology of Public Speaking*, Pearson Brothers, Philadelphia, (1906) was an early and influential work. It was, however, a psychologist's contribution to the study of the speaker and his audience, rather than a speech text. The first psychologically oriented text for public speaking classes, written by an academic teacher of public speaking, was *Public Speaking*, Century Company, New York, (1915), by James Albert Winans. This text, applying the dualistic and structuralistic psychology of William James and E. B. Titchener, indicated the academic nature of knowledge about speaking, and the author's belief that his instructional subject matter was neither rhetoric nor elocution, but public speaking. *The Fundamentals of Speech*, Harpers, New York, (1920) by Charles Henry Woolbert, carries the first specific text book expression of the monistic view that is basic to modern speech theory. Influenced by his doctoral study at Harvard, when Behaviorism was at its height, he insisted, in the words of his Preface, "that speech is a matter of the whole man, the cooperative activity of the entire organism." These pioneer works by "Academic Teachers of Public Speaking" were followed by numerous articles and texts which added the contributions of *Gestalt Theorie*, and merged rhetoric, elocution, and psychology in the subject matter of speech. One example, though by no means the only one, of this fusion is *Basic Principles of Speech*, Houghton Mifflin, New York, 1953, by James H. McBurney and Ernest J. Wrage. Public Speaking comes full circle!

42. Rhetoric, traditionally the study of speech content and composition, with varying mention of delivery, now includes public address, extemporaneous speaking, debate, discussion, group dynamics, persuasion, general semantics, and theory of communication. Each division, moreover, includes information concerning the nature of the designated processes and appropriate occasions and means of their use. With no diminution in its traditional interest in historical and critical studies of dramatic literature. Theatre has added courses presenting the theories and techniques involved in theatrical production. Interpretation, retaining its tradition as an art form, is also studied and used as an educational technique to increase the student's knowledge and understanding of the form and content of literature, and of the value of literature to human life. Traditionally confined to the presentation of drama, poetry, and epic narrative, by the individual, it now portrays other forms of recorded experience, and encourages group participation and benefit through verse speaking choirs and readers' theatre. Linguistics, Phonology, and Phonetics, broadened in knowledge, remain in college catalogs, and are accompanied by speech correction, audiology, language pathology. Dramatic and forensic activities, once extracurricular, now are routine educational procedures throughout the public schools as a means of learning. Newer in name than in content, courses and studies in the teaching and psychology of speech are occupied with matters of curriculum, course organization, teaching methods, and the laws of learning. Most recently, the technical facilities for wide and instantaneous distribution of the spoken word have added radio, TV, and film as significant and integral parts of modern speech.

43. John A. Perkins, President of Delaware, commented concerning the

availability for faculty positions of people with the doctorate, "It has been predicted by informed authorities that by 1970 only 20 per cent of the full-time teachers will have this one objective indicator of special competence." "Financing Higher Education: Perspectives and Possibilities," *Journal of Proceedings and Addresses, Tenth Annual Conference of the Association of Graduate Schools*, (1958), 76.

44. "Report of the Committee on Policies in Graduate Education," *Journal of Proceedings and Addresses, Eighth Annual Conference of the Association of Graduate Schools*, (1956), 20.

45. Sample years from Tables III and IV,
 Projections of Earned Degrees Conferred in Institutions of Higher
 Education in Continental United States: 1955-56 to 1970-71.

(Projections as of March 1956)

Academic year	Master's and Second Professional Degrees	Doctor's Degrees
1959-60	87,300	10,520
1960-61	91,200	12,180
1964-65	110,300	14,980
1965-66	122,200	15,750
1969-70	160,900	19,720
1970-71	170,200	20,940

(The "Master's" column includes the second professional degrees which are excluded from the figures given in the earlier table, footnote 9.)
Ibid., 18 and 19.

46. Present social interaction processes and patterns, and international diplomacy as well, seem to reflect the world of their origin,—a world marked by scattered populations and the limitation of travel and communication to the speed of animal muscles and ocean winds. But they are used today in a world made sensitive by the loss of the insulating and cushioning effects of time and distance.

47. Andrew T. Weaver, "What is Speech? A Symposium," *Quarterly Journal of Speech*, 41, (1955), 153.

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